

THE IMPACT OF PHOENICIAN AND GREEK EXPANSION  
ON THE EARLY IRON AGE SOCIETIES  
OF SOUTHERN IBERIA AND SOUTHWESTERN GERMANY

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## ABSTRACT

This thesis is concerned with the nature and processes of Phoenician and Greek expansion into the Western and Central Mediterranean and their impact on the indigenous societies of 'Prehistoric' Europe. It will be shown that these processes must be viewed within the context of the changing configuration of the Western Asiatic regional system and its Mediterranean extensions in the late second and early 1st millennia BC. From the 8th century, parts of Europe were increasingly drawn into this system with the establishment of Greek cities and Phoenician trading spheres in the Central and Western Mediterranean.

The nature of Phoenician strategies and the 'colonial' situation in Iberia resulted initially in the creation of a Western Phoenician sphere, based on Southern Iberia, which served to link the Atlantic trading network with the Central Mediterranean, and the emergent Etruscan and Greek cities. By the 6th century, independent access to resources of Central Europe was firmly established across the Alpine routes and along the Rhône. The effect of the incorporation of Central Europe north of the Alps into the periphery of the Central Mediterranean core states is examined in Southwestern Germany and the corresponding decline of the Western Phoenician sphere is emphasised.

Essentially, therefore, we are dealing here with a single regional system, in which the Western Asiatic and Eastern Mediterranean core states expanded geographically into the peripheral areas of Mediterranean and Central Europe, incorporating them into the economic regional system. The nature of the new role of the Iron Age societies in the regional system varied according to both the internal organisation and external relations of the particular society before connections - direct or through intermediaries - were established with the core centres.

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## INTRODUCTION

This thesis is concerned with changes in local societies in two areas of Western Europe within the context of Phoenician and Greek expansion into the Western Mediterranean in the early 1st millenium BC.\* The main focus of the study is the westward commercial expansion of the Phoenician city states, with particular reference to Southern Iberia.

In Part I, the political and economic conditions which led to Phoenician expansion into the western Mediterranean in the 8th and 7th centuries are summarised. It will be suggested that the beginning of the Phoenician expansion process can be recognised in the Late Bronze Age trading network of Western Asia and the Eastern Mediterranean. Phoenician expansion is then compared with the processes of Greek colonisation in the West, in order to demonstrate certain similarities and differences in the motivation, organisation and functioning of these two major regional developments.

On this basis, the study proceeds to demonstrate, in Part II, the role of the Phoenicians in the 'Far West', particularly in Southern Spain and Portugal. The establishment of Phoenician 'factories' on the south coast of Spain is seen to be the culmination of the Phoenician involvement in the formerly Atlantic network of trade in metals. After analysing the dominant external relations of later Bronze Age metalworking centres, the relations between the Phoenicians and the indigenous populations of Iberia will be examined within the context of the Phoenician creation of a new Atlantic-Mediterranean network, the Western Phoenician sphere. It will be shown that Phoenician involvement served to connect up previously discrete local regions into larger systems of specialisation and exchange and political complexity. Depending on differing advantages in natural resources, communication routes and the ecological potential for the maintenance of dense populations, certain shifts in local economic and political development in Southern Iberia can be shown to be related to differential access to and contact with Phoenician trading entrepôts and production centres.

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\* All dates cited, if not otherwise specified, are BC.



In Part III, a comparison is made with developments in Southwestern Germany, in the context of the expansion of the Western Greek and Etruscan cities. The Early Iron Age (Hallstatt D) society of Southwestern Germany is seen to share with Southern Iberia certain similarities in lying within the periphery of a regional system dominated by the economic activities of a major commercial city state located or represented in the Eastern and Central Mediterranean. Hence, both can be classified as 'prehistoric' due to their relatively low degree of incorporation into the literate civilisations of the Mediterranean. However, as will be shown, the different motivations of their external trading partners not only affected the internal ordering of the indigenous societies, but resulted in distinct social developments in the two areas during the Early Iron Age.

Relations between the Eastern and Western Mediterranean in the early 1st millennium have traditionally been interpreted in terms of influence, diffusion and cultural borrowings, in which the Eastern Mediterranean peoples, such as the Phoenicians and Greeks, have been seen as the principal agents. Recent attacks on the vagueness of such concepts, whilst necessarily diverting attention back to the internal structure and organisation of local European society, also embody the danger of devaluing relations with the Eastern Mediterranean and the Near East in favour of local, autonomous development. It is useful to be reminded here of Steward's original stricture on the value of the concept of diffusion which he recognised referred to some evidence of contact in reality, but disputed whether such an empirical observation represented an explanation without specification of the mechanism of contact or exchange involved (Steward 1965, 208-9).

A framework is needed therefore that will account for both the internal structure of a local society and its external relations, ie. the position it occupies within a larger regional system which determines in a sense the rate and impact of the 'influences' that it might be exposed to. Our general concern therefore is to understand how external factors affect the internal ordering of local societies given their different positions in regional trading networks and the different motivations of external trading partners involved.

It is usual to view the impact of Phoenician and Greek expansion into the Western Mediterranean in terms of an external force penetrating a relatively closed system. This view tends to lead to interpretations in terms of categories, such as literate/non-literate, civilised/uncivilised or state/non-state for comparing their impact on local societies. In some ways, the implicit contrast has a value in specifying contact between different levels of complexity and varying cultural milieux as part of the flux out of which the major civilisations of the Western Mediterranean were to emerge. However, it can be argued that such a view tends to underestimate the degree of underlying economic integration that served to make the Phoenician traders and Greek colonists as dependent on their peripheral hinterlands as the latter came to be on the former for supplies of luxury commodities and as outlets for local resources and surplus products. It has therefore been found more valuable in this study to stress levels of regional integration and dependence between social systems of varying complexity and internal economic and political organisation than to stress their potential incompatibility and fortuitous juxtaposition in a process of 'expansion', 'colonisation' and 'domination'.

However, this perspective requires reinforcement at the methodological level in order to provide the concepts for the analysis of particular historical situations. In his work on the origins of the European world economy in the 16th century AD, Wallerstein (1974) uses the concept of a 'world system' to refer to a self-contained, economic-material entity based on an extensive regional division of labour. Such systems contain within them a multiplicity of cultures which are nonetheless linked to each other in the sense that none are self-contained economic and social wholes and can only survive through occupying a specialised role in the larger regional system. He proceeds to define such a system (1974, 347ff) as one in which there is an extensive division of labour which is not merely occupational, but also geographical. By this he means that the range of economic tasks is not distributed equally throughout the system and that certain societies within the system come to occupy dominant positions and to be able to extract a larger share of the economic surplus available. We are thus presented with a regional configuration of local societies linked to each other through material and economic exchange and within



which a hierarchy of occupational roles can be detected since tasks requiring specialist skills, for example, are reserved for higher ranking areas. Hence, particularly advantaged areas emerge in the regional economy as part of the process by which a world economy 'tends to expand the economic and social gaps among its varying areas in the very process of its development' (Wallerstein 1974, 350).

Wallerstein suggests, therefore, that world economies can be divided into core states and peripheral areas. In core states, the creation of strong state mechanisms, coupled with a national culture, serves to protect and maintain disparities that have arisen within the world system. Peripheral areas refer to situations in which local societies are primarily suppliers of raw materials, labour or specialist products to core states in return for products requiring more advanced technologies and access to more exotic materials than would be available within peripheral areas (see for example pp.301-2). Such a configuration is stable neither in time nor space in the sense that previous core states can lose their position of dominance and revert to peripheral or semi-peripheral status and former peripheral areas can develop with time into core states. Regional systems of this type tend to be expansionist in the sense that for a core state to develop it seems to be structurally necessary for it to expand its peripheral area into previously independent areas and hence enlarge the boundaries of the regional economy. At any one time, therefore, the boundaries of a world economy are surrounded by an external area that in the next phase may be expanded into and incorporated as a peripheral area.

As a general model, Wallerstein's approach is of significant value for understanding some of the processes at work in the area under study in this thesis. Our understanding of the prehistory of the Western Mediterranean in the early 1st millenium is dominated by the interplay and emerging interdependence of core states (eg. Greek, Phoenician, later Etruscan, Carthaginian and Roman) and their external areas that were to different degrees and effects to be incorporated as peripheral areas into the regional economies dominated by such states.

Our emphasis here lies in the comparison of two cases of societies incorporated into the periphery of such large, regional systems dominated by different core states. In terms of traditional archaeological categories they will represent the juncture between literate and non-literate, historic and prehistoric as a feature determined by the degree of involvement of such peripheral areas in the larger regional economy.

Whilst the focus of the thesis is directed more towards the Phoenician impact on Southern Iberia, the Southwestern German material has been drawn upon for comparative purposes. The contacts between Central Europe and the Western and Central Mediterranean in the 8th and 7th centuries are clearly related to the same general process of colonisation and expansion, that had such critical impact on the peripheral areas in the Central and Western Mediterranean (ie. North Africa, Southern and Central Italy, the islands of the Western Mediterranean and Iberia). However, the involvement of Greeks and independent Etruscan city-states in Central European trade implies a very different set of incentives and motivations for contact with Europe north of the Alps when compared with Phoenician interest in its Western sphere at this time. We therefore have the opportunity to compare and contrast two processes of economic expansion and colonisation, both on the basis of what we know of the structure and functioning of the core states and also by examining the impact these processes had on European society in two critical areas for understanding later developments in European prehistory. It might also appear, for analytical purposes, that these two areas are being treated as relatively isolated from each other, but in reality this was not so. As will be referred to, it is of crucial importance to recognise that both areas were part of a larger network linked through economic exchanges, controlled and directed by the powerful city-state economies of the Eastern and Central Mediterranean. The nature of the Southwestern German data also facilitates a study of the internal structure of the social system that developed in the area during this period; at present this is not possible for Southern Iberia.

On the other hand, the fieldwork, surveys and excavations of early Iron Age sites in Southern Spain, a consequence of the recent development of the southern coast, allows us greater insight into the immediate contact situation between an urban, literate society and a prehistoric population. Hence, we have an advantageous comparison between the situation of direct contact and its transitional forms in Southern Iberia, and the more direct - hence more easily monopolised - connections that linked Southwestern Germany via the Rhône and Alpine passes to the Greek colonies on the coast of Southern France and to the Etruscan cities. In this study it will be attempted to show that the difference in the nature and mode of contact may not be purely fortuitous or an accident of archaeological recovery, but represent a significant consequence of the different processes of contact and development that took place in these two areas.



## PART I

### PHOENICIAN AND GREEK EXPANSION AND COLONISATION: AN OVERVIEW

This section is an attempt to draw a general outline of the structure of Phoenician and Greek city state economies and the dynamics of the processes which led to their expansion into the Central and Western Mediterranean early in the 1st millenium BC. No attempt will be made here to deal in detail with the internal structure of the primary Phoenician and Greek city states, since this would represent a major excursion beyond the limits of this thesis. Instead, it is necessary to elucidate here the dynamics of the expansion within the internal workings of the primary city-state economies. Hence, a general overview of current understanding of Greek and Phoenician political and economic structures within this period will be presented, and then their impact in the Western Mediterranean examined in some detail.

#### A - The Expansion of the Phoenician City-States

The Phoenician city states occupied a narrow strip of the Levant coast, c.200 miles long, up to 30 miles wide, between Tartus and Dor, or Jaffa. During the Bronze Age this area was part of Canaan. The main Phoenician cities were situated on off-shore islands or in enclaves beside coastal headlands at the mouths of small streams flowing down from the forested mountains of Lebanon. The fragmentation of the Levant coast, due to faulting, dry valleys and perennial streams, made maritime communication dominant in the coastal area, contrasting with the main North-South inland routes (see Baly and Tushingham 1971, Map 3, Map XI, Map 14). See *Figure 1* for the location of the important sites referred to in this section.

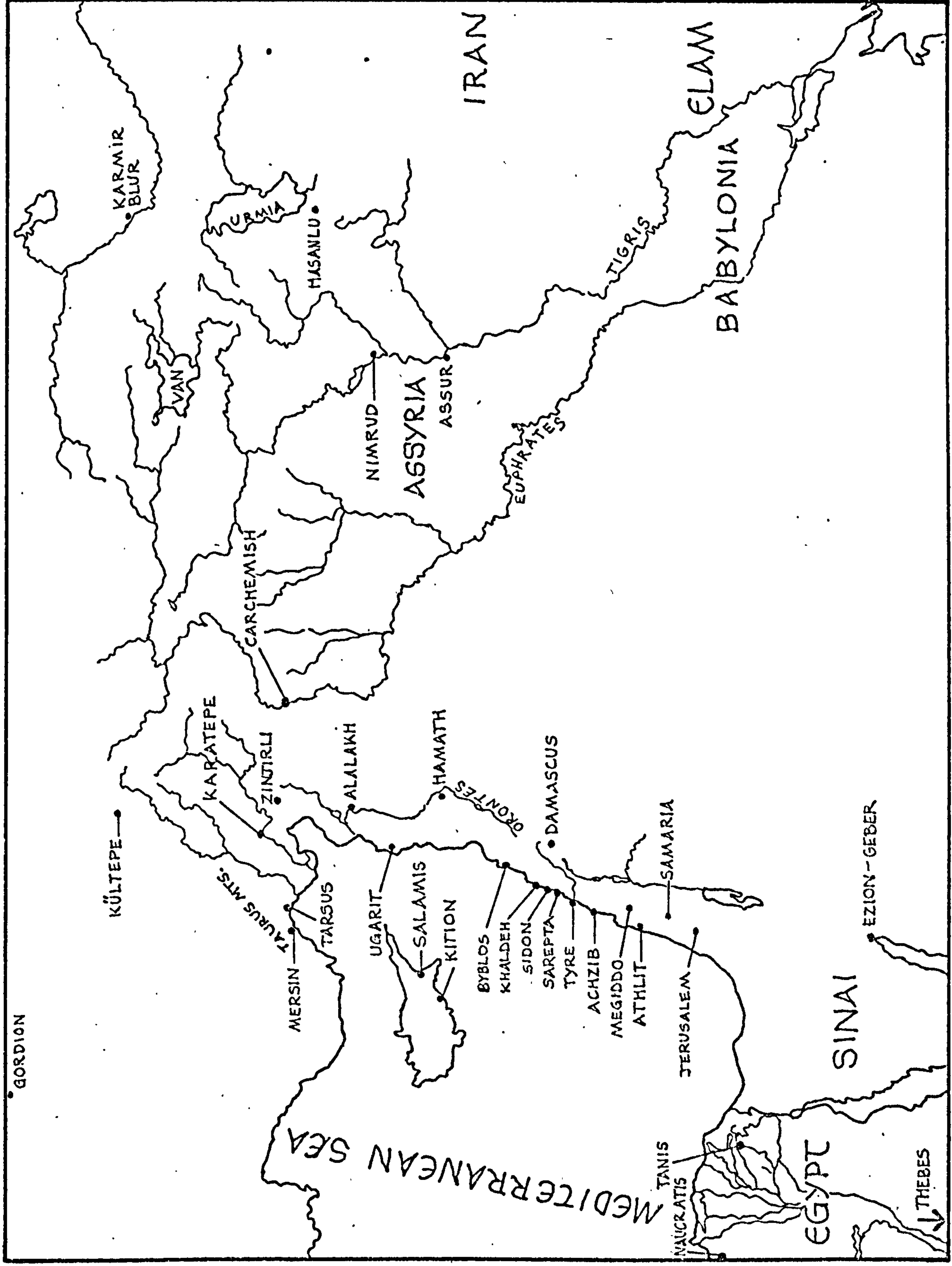


Figure 1: Map of the major sites and regions referred to in Part I A.



Theories of distant origins for the Phoenicians\*, such as the 'Red Sea' (Herodotus VII, 89). (ie. the Persian Gulf), and the Negev, have been abandoned and an indigenous origin of the Iron Age inhabitants of Phoenicia is now generally accepted. (Albright 1961 and Muhly 1970 discuss these theories; the former summarises the early bibliography.) During the Late Bronze Age the inhabitants of the Syro-Palestinian coast were known as 'Canaanites', eg. in 15th-century inscriptions from Egypt and Alalakh. From the Hurrian word 'kinahhi' for the country of Canaan, the word for the red dye 'kinahhu' was derived. Similarly, the Hebrew word for a 'Canaanite' came to mean 'merchant' too (Astour 1965; Muhly 1970). Just as the B.A. Levantine populations had associated themselves with their cities and not 'Canaan', so in the Iron Age the people known collectively to the Greeks as 'Sidonians' or 'Phoenicians' (both names are found in Homer) considered themselves to be the people of Tyre, Sidon, Byblos, etc. In Neo-Assyrian texts, the Phoenician cities were part of 'Amurru' - the Westland - or 'the land beyond the Euphrates' or simply 'the seacoast' (Pritchard 1955, 1969).

### 1 The Bronze Age background

The processes which led to the expansion of the Phoenician city-states in the early 1st millennium can be seen to develop during the entire 2nd millennium, beginning even earlier. This can best be demonstrated by tracing the relations of the Phoenician cities with the Egyptians, Mycenaeans, Israelites and Assyrians in order to locate this development and define its institutional settings. Since the early 1st

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\* Barnett, Albright, Katzenstein, Bass and others use the term Phoenician for the pre-Iron Age periods too; Albright defined the terms in 1942 to avoid confusion:

'... the word "Canaanite" is historically, geographically and culturally synonymous with "Phoenician"... For convenience we shall employ "Canaanite" below to designate the Northwest Semitic people and culture of Western Syria and Palestine before the 12th century BC and the term "Phoenician" to indicate the same people and culture after this date.'

(1961, 328)

millenium levels of the Phoenician cities - with the exception of Byblos - are virtually unknown, archaeologists and ancient historians alike have relied heavily on documentary evidence for their understanding of the Phoenician homeland. Although some recent publications by Saidah (1966, 1969), Culican (1973b), Chapman (1972), Pritchard (1975) and others, are gradually ameliorating the present situation of a sparse archaeological record for the L.B.A./Iron Age in the Phoenician homeland, the situation is not likely to improve radically (cf. Pritchard 1975, 3).

Trading connections between Egypt and the Levant coast go back to the Old Kingdom (2700-2200) when Byblos was involved in an extensive exchange network, supplying timber especially during the 5th and 6th dynasties.\* Finds of Egyptian material in Canaan (from the 2nd dynasty onwards) and in Egypt (in 1st dynasty and later contexts) confirm this relationship. Ward suggests that from the 3rd dynasty, stone vessels were one of the major trade items reaching Byblos from Egypt, together with copper, gold and spices, ebony and other luxury commodities from Nubia. The Egyptians obtained 'wood, gums and oils' (1963, 54) from Byblos, which during the Old Kingdom 'was growing into a commercial center with large private houses, temples and other public buildings...' (p.55). During the 12th dynasty, Ward notes that 'the center of Egyptian commercial interest in the north was at Byblos. It was through this vital port that indirect connections were maintained with other areas beyond the Syrian coast' (Ward 1961). At this stage, Egyptian commerce was a 'royal enterprise'. But during the First Intermediate period (c.2160-2000), when relations with Egypt were weakened, other Western Asiatic centres and Cyprus appear to have strengthened their ties with Byblos (Negbi 1971). (See also Albright 1961, 332; Kitchen 1973; Chehab 1968.) Albright emphasises the continuity of Egyptian contact and even authority over Byblos until the 19th dynasty (1961). But the considerable demands

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\* Harden suggests that the 'narrowness of the coastal strip of cultivable land made it necessary to supplement native resources by imports such as livestock and corn' but then adds that Palestine - known for its fine arable - also 'needed imports' (1971, 127). There is no simple environmental 'explanation' of Phoenician, or Canaanite, specialisation in trading activities.



and constraints exerted by Egypt during the 18th dynasty on the Levant coast were - in the words of Culican: '... unlikely to foster the development of national enterprise in any direction except that of trade' (1966, 38).

Following the overthrow and expulsion of the Hyksos, the first pharaoh of the 18th dynasty - Ahmosis - initiated military campaigns in the Levant which his successors - especially Tuthmosis III - were to continue. Revolts occurred frequently necessitating military intervention by Egypt. The independent, often competitive, cities of the Levant coast were thereby subjected to Egyptian domination which could, at first, be satisfied with tribute payments. Later, the Egyptians raided the Levantine cities for booty and established military posts there. The annual tribute expected by the Egyptian conquerors included slaves, horses and chariots, which were highly prized and under royal control in Egypt. (Drower 1970, 60-3). During the reign of Tuthmosis III, the North Syrian coalition, under Mittani, was broken and the coastal cities - now 'vassals' of Egypt (eg. Warmington 1960, 16) - paid some tribute in the form of agricultural produce, as depicted in wall paintings. But Katzenstein (1973, 25) suggests that Tyre would have paid in 'merchandise (eg. copper, wood) or in ships, or in the knowledge of shipbuilding which was put at the disposal of pharaoh'. This would explain the privileged position of Tyre and probably other Phoenician cities which can be assumed from the fact that the Egyptian army always bypassed the Phoenician cities when campaigning in the Levant during the reign of Amenophis II and his successors.

In the contents of Amenophis II's tomb (1440-1415), indications of Canaanite and Syrian traders operating in Egypt are given by sherds inscribed with Semitic names and by the 'non-Egyptian' nature of some items (Culican, 1966, 40-7). Culican also cites the evidence for the presence of these traders in Egyptian ports from wall paintings in the tomb of Kenamun, the King's steward, at Thebes, which depict Canaanites clad in purple robes bringing wine, cloth, oil and cattle to Egypt in light sailing vessels. Individual merchants appear to be dealing with Egyptians on the quay-side, whilst certain commodities - such as slaves -



were received by the Pharaoh's representative. Thus, foreign trade was no longer a royal monopoly (cf, Drower 1970, 62). The increased amount of Egyptian material found in Canaan following Tuthmosis III's campaigns is described by Chehab (1968, 6-8); it includes stelae at Tyre and scarabs, alabaster vessels and Egyptian architectural elements in Byblos.

Warmington (1960, 16ff), Katzenstein (1973, 26ff) and others refer to the establishment of contacts beyond the Empire in Cyprus, Crete and Mesopotamia during this period, since the secure conditions prevailing under Egyptian hegemony in the Eastern Mediterranean were propitious to trade. Catling (1966, 54) refers to Cypriot 'manufacturers and merchants' involved during the 16th and late 15th centuries with Egypt, Syria and Palestine; and Drower (1970, 62) refers to the timber, copper, lead and silver - from the mines of Anatolia\* - which together with luxury commodities such as silver, gold and bronze vessels (often containing wine, oil, incense etc.) were reaching Egypt at this time.

Hence, without being able to detail the exact structure and internal organisation, we can see that by the 16th century 'Canaan' occupied a pivotal position in a complex regional economy linking S. Anatolia, Cyprus, Syria and Egypt in which the 'Phoenician' cities had already developed specialist roles of navigation and luxury commodity producers on which more powerful partners became dependent. It is also clear that the relationship of the Canaanite cities to Egypt was not simply one of vassalage but was based on complex ties of tribute, mutual dependence and alliance, in which cities competed for political and military support from the Egyptian pharaohs. This situation is best known from the El Amarna period of the early 14th century.

From letters sent by the rulers of the cities of Egyptian-dominated Canaan to Pharaohs Amenhotep III and Akhenaten, found at El Amarna, significant information on the internal and external relations of some

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\* Rostovetzeff relates the exploitation of copper and silver in Cilicia and Cappadocia to distribution by caravan traders to Phoenicia, especially Byblos, and thence to Egypt. (1932, 10)

Phoenician cities can be gleaned (eg. Katzenstein 1973, 27-44; Aldred 1963, 42-3; Oppenheim 1967). In the context of increasing hostility between Egypt and the Hittite empire, the cities of Canaan are seen to form alliances with each other as well as reinforce their allegiance to either of the two major powers. This applies to Cyprus too: eg. in EA 35, the king of Alasia pledges allegiance to the king of Egypt, and begs to be pardoned for sending less copper than usual, since famine had prevented the usual exploitation to take place. He then asks for a bull, scented oil, payment for timber taken by Egyptians, and 'lots of silver'. He pleads with the pharaoh not to ally himself with the king of Hatti. One learns something of the 'reciprocal' nature of Egyptian domination when exchanges of material are involved: He writes: 'My brother, please send the silver... I on my part have always returned two-fold to you what ever presents your messengers have brought me.' (Oppenheim 1967, 122-3).

Sidon's alliance with the King of Amurru brings her into conflict with and eventually forceful opposition to Tyre. Tyre's alliance with Byblos is indicated by letters from Ribaadi the king of Byblos, which also refer to the threat posed by the Amorite peoples, under Abdi-Ašratu (eg. EA 125 and 137 in Oppenheim 1967). When unable to meet his tribute payments to Egypt, Ribaadi refers to gifts of copper he had received from the king of Tyre, to whom he had given his sister in marriage. In appealing to the pharaoh to investigate a revolt in Tyre in which a usurper - possibly pro-Amurru - deposed the line with which Ribaadi was allied, he boasts of the wealth of Tyre: 'there is no governor's house like it; it is like the house of Ugarit, exceedingly great is the wealth within it' (EA 89 in Katzenstein 1973, 27-44); and refers to the men of the city who act as the king's equals insofar as 'they' or 'the city' could make political decisions. Their counterparts are known in other cities too, referred to there as 'the lords of the city' in Byblos, or simply as 'the men of Arvad'.

The letters sent by a later king of Tyre, Abimilki, to Akhenaten are concerned with the conflict with Sidon and emphasise the vulnerability of the island city when the mainland territory was controlled by Sidon, leaving the Tyrians without fresh water, wood and a burial ground.



'Now I am guarding for Your Majesty Tyre, the great city, waiting until the mighty arm of the king extends over me to give me (from the mainland) water to drink and wood to warm me.'

(EA 147, Oppenheim 1967, 125)\*

He also makes an explicit statement about the alliance of Sidon with Azira, the son of Abdi-Asratu, and their collusion against Egypt.

The 'special status' of the city of Tyre within Egyptian-dominated Canaan and Sidon's alliance - indirectly with the Hittites - resulted in military aid being sent by the pharaoh which enabled Tyre to defend herself and thereby presumably be in a position to continue to support Egyptian domination in Canaan (Katzenstein 1973, 70ff), thereby showing willingness to continue to support Egyptian domination of the regional trading network.

Drower (1969, 1970) has emphasised the more or less constant dependence of the Syrian cities on one of the main powers commanding the sources of raw materials and access to them along the major trade routes. She therefore sees the late 16th and 15th centuries as an important period for the development of navigation. There are references to the activities of merchants passing through and even residing (sometimes seasonally, in countries and cities other than their own, and their rulers are obviously concerned about the maintenance of these rights to each others' territories (Drower 1969, 25-39).

Maisler (1946) notes that the 15th-century use of the term 'Kyn'nw', ie. 'Canaan' in the time of Amenophis II referred to a special class of people in Syria, ie. the traders, and only in the late 14th century was the term 'Kun' used with reference to the Egyptian province of the Levant.

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\* Not until the 13th century was Ushu part of the kingdom of Tyre (Katzenstein 1973, 75).

In summary, one can say that the coastal cities of Canaan, by their involvement in the regional trade network, and their support (most of the time) of Egyptian pre-eminence, were encouraged to increasingly organise their economic activities along the following lines:

- (a) the production of luxury commodities for royal consumption, viz. Barnett's (1956a) significant demonstration of the royal monopoly over the possession of ivory (attested for the 13th but probably applicable to earlier centuries;
- (b) the production of certain commodities - such as cloth, dyes, garments - on sufficiently large scale to be used in tribute payment and in exchange for raw materials to be used in both spheres of commodity production;
- (c) the development of navigation skills and ships for both carrying these bulk commodities and to be ensured of independent access to raw materials for production industries and the maintenance of their workforce. These raw materials would include ivory, copper, tin, probably linen, wool, and agricultural products too.

## 2 The Late Bronze Age: the Mediterranean relations

It is clear, therefore, that when the Mycenaeans extended their own Aegean and Central Mediterranean trading network into the Eastern Mediterranean, the Near Eastern network was organised such that the interpenetration of the two networks could be accomplished without major interruptions in the functioning of either. In the Near East, there was an established, far-reaching network extending inland to Mesopotamia, and reaching - by sea - Cilicia, Cyprus and Egypt. Also, the organisation for the provision of bulk commodities already existed. Therefore, the Mycenaeans became one more trading partner, tapping into an established network, providing - most conspicuously, but not exclusively - manufactured goods.



Mycenaean pottery is found in the Near East on coastal and inland sites, such as HAZOR, GEZER, LACHISH, GAZA (Kenyon 1971), beginning with Mycenaean II and III A 1 types, but the most widely distributed wares are those of Mycenaean III A 2 (cf. Hankey 1974, also 1967, with bibliography). Evidence comes from the coastal sites, UGARIT, BYBLOS, TARSUS and the cemeteries at SARAFEND (where the finds from one robbed tomb included 34 Mycenaean vases: Baremke (1958)) and south of SIDON, where Saidah claims important finds of Mycenaean, Cypriot and Egyptian wares are found in indigenous graves (1969). The evidence is generally accepted as indicating some Mycenaean occupation on the coast, but Sanders notes if a Mycenaean enclave had existed at UGARIT then Aegean type names would be expected among the commercial archives (1971, 141). However, the evidence for Mycenaean sanctuaries, eg. inland at AMMAN, Jordan (Mycenaean II-III A/B, Hankey (1974)), does corroborate the evidence for their presence in the coastal settlements.

The establishment of Mycenaeans in the Near East would logically lead to the local manufacture by Mycenaeans of items for trade: there is no evidence yet for this development (cf. Riis 1970, 131). Riis believes that 'stylistically' Mycenaean III B wares found in Syro-Palestine are Cypriot products; but analysis of material from TELL ATSANA on the Amuq plain has proved it to be Peloponnesian, as is most of the contemporary material that has been analysed from Cyprus (1970, 130).

Cyprus was a crucial area of Mycenaean activity, where, according to Catling '... what had been a trickle of Mycenaean trade in the late 15th century became a flood during the 14th, a flood which was maintained for at least the first half of the 13th century' (1966, 56). Possibly from the 16th, but certainly by the 14th century, Mycenaeans were involved in the exploitation of copper in eastern Cyprus. Wheeler et al (1975) have now shown that the copper ingots found in the Minoan palaces that they have analysed appear to be Cypriot copper. At L.B.A. Cypriot sites like TEKKE, ENKOMI, KITION and ATHIENOU, there is evidence for increasing Mycenaean presence at these centres for copper extraction and export (eg. Karageorghis 1973, Dothan and Ben Tor 1974). There is also evidence for great accumulation of wealth, 'consumed' in the form of Syro-Palestinian



and Egyptian luxuries in the 13th-century tombs at KITION, and represented at ATHENIOU by the Egyptian rhyton. This array of luxury commodities produced within the Near Eastern trading network and the associated mass of highly ornamented special Mycenaean vessels, indicate quite clearly what the Cypriots involved in the copper industry were obtaining for their role in the distribution of copper into the Eastern Mediterranean (and of course Aegean). cf. Karageorghis (1973, 10): 'The contents of one simple tomb are enough to illustrate the fabulous wealth of Kition which was the result of trade with Egypt, the Syro-Palestinian coast, and the Aegean.' It is significant that Mycenaean involvement in these copper production centres does not end in 1200, but large workshops directly associated with cult activities are dated at KITION to the 12th century and attributed to the presence of Mycenaeans using III C 1 pottery, ie. the inhabitants of the site are now Achaeans.

However, it can be seen that even before the two waves of Achaean colonists (using Mycenaean III C 1 and 'Granary Style' wares, cf. Karageorghis 1973), the Mycenaeans were controlling the copper industry by increasing the scale of extraction and probably controlling its transport by sea. Muhly (1973, 195-8) believes that the Mycenaeans were involved in intensive commercial activities in Cyprus and UGARIT: 'The thirteenth century was the great age of copper smelting on the island of Cyprus as it was for the Cypriot metal industry.' (p196) This precedes actual Mycenaean settlement of Cyprus. Riis, on the other hand, stresses the Cypriot element in the Mycenaean connection with UGARIT - as noted by Schaeffer and others - and proposes Cypriot dominance over the Mycenaeans there (1970, 130-2). But, the greater density and extent of the distribution of Mycenaean wares in the Near East, together with the evidence for Mycenaean activities in Cyprus, do not support this view.

The evidence for Mycenaean control over Cypriot copper production and trade is to be found in the correspondence of the great wealth of the Cypriot centres with the period of Mycenaean imports, not in the preceding period when Cypriot vessels, such as juglets, base-ring wares, etc, testify to relations with the Near East. It can therefore be

suggested that the Mycenaeans supplied the Cypriots with their own luxury wares, eg. kraters for burials, as well as the luxury commodities from the Near East, but in so doing they had taken control of the products of the intensified copper industry. The concentration of Cypriot L.B.A. finds in copper-working areas, or on the routes to the coastal centres of production and distribution, has been noted by Catling (cited by Muhly 1973). Hankey (1974) has remarked on the absence of Cypriot wares in Egypt from the Amarna period: this would support the argument for Mycenaean control of the transport and trade in Cypriot copper from the 14th century.

The successful penetration of the Near-Eastern trade network by the Mycenaeans cannot be envisaged solely on the basis of the supply of ornamented pottery containers, the counterparts of which had probably been hitherto produced locally, possibly supplemented by imports from Cyprus. It is even possible that the Mycenaean containers were used for the distribution of oils and balms produced in the Near East (for which production centres on the coast are known) and may in fact have been carried back to the Aegean in the Mycenaean containers. Hankey (1974) believes quite the contrary, ie. that the contents of the closed vessels, such as the stirrup jars, were the object of the exchanges between Mycenaeans and Levantine traders.

However, the initial foothold in the Near Eastern network could only have been achieved by the Mycenaeans in their capacity as suppliers of copper. By increasing the production of Cypriot copper and by using their own ships for transport, the Mycenaeans would have had a competitive advantage in the supply of copper over suppliers of the more distant copper sources in the interior.

Once established as a trading partner, the flows of manufactured Mycenaean commodities - that are archaeologically documented - could be initiated. The example of the III A 2/B 1 closed shapes could represent the Mycenaean response to an increased demand for the contents of the much prized alabaster and ivory containers which would have facilitated distribution to a larger sector of the population in exotic pots, whose distribution could be controlled by the Levantine trading partners.



The reason for Mycenaean involvement in the Levantine trading centres and the possibility of 'Phoenician' traders penetrating the Aegean are much disputed issues. Linear B tablets include words of Semitic origin for ivory, gold and condiments (eg. Barnett 1956b); these items are therefore generally accepted as commodities obtained through trade with the Levant. In addition, Bass (1967) makes a strong argument, on the basis of the Cape Gelidonya shipwreck\* for suggesting that 'Syro-Palestinians' or 'Phoenicians' were carrying metal to the Greek mainland in exchange for the Mycenaean products which reached the Levant. He comes to the unlikely conclusion that:

'... the extent of Mycenaean shipping has been highly overrated simply because her chief export commodities, pottery and goods shipped in pottery, left such durable remains. Although the goods received in exchange by the Mycenaeans are no longer so immediately apparent, they were certainly of equal value to the people who traded them.'

(Bass 1967, 166)

(Bass also supports Stubbings and others in their belief in the contemporaneity of Phoenician traders in the Aegean with the Homeric heroes of the L.B.A.)

The expansion of Mycenaean trade westwards can be traced as far as Italy, Sicily, the Aeolian Islands and Ischia: the most northerly finds are from LUNI SUL MIGNONE, an important Apennine site in Northern Latium (eg. Vagnetti 1970). Mycenaean wares are not found further west,

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\* On the basis of pottery types, amulets and some determinations of organic matter Bass believes the ship to be Syro-Palestinian and manned by a Levantine crew who would be involved in the working as well as the carrying of the metals found on the ship. The cargo included Cypriot copper ox-hide ingots - with handles - tools, scrap, metalworking equipment, lead weights, and most significantly bronze and an ingot of tin. Finds and C 14 dates concur to give a date of  $1200 \pm 50$  BC. Even if his identification of the ship's origin is correct, it is hardly sufficient evidence to either extend Phoenician shipping enterprise geographically (into the Aegean) or chronologically (into the 14th century).



but it is generally believed that their activities in the Central Mediterranean would have led to the orientation of trade, particularly in raw materials such as metals, to centres in the Central Mediterranean, culminating in the development of 'free ports' or ports of trade in Lipari, for example (cf. Vagnetti 1970; Muhly 1973, 280). Vermeule (1964, 228) regards the west as a secondary source of copper, and possibly tin, from the 15th century. Muhly (1973, 277ff) sees the western connections as the basis of the 16th and 15th century Mycenaean bronze industries, even if - as he believes - Aegean relations with the west were not originally established in order to obtain metal.

The beginning of the Aegean/Central Mediterranean connections is dated to the Middle Helladic period, cf. finds in Apulia, but most imports are of Mycenaean III A and B wares. They are found in some quantity on several sites in Apulia, the Aeolian Islands and Sicily; Mycenaean III C wares are found in Lipari and Apulia, where connections with the Aegean are represented by later finds of Sub-Mycenaean and Proto-Geometric wares too. (See Vagnetti 1970 for locations, finds and bibliography.) The possible 'Late Apennine wares' from LEFKANDI, Euboea (Popham and Sackett 1968) found in a Mycenaean III C context are cited by Vagnetti to support the Apulian/Aegean connection. Snodgrass (1971, 324ff) notes the relations in the metalwork of Northern Italy and the Aegean: in some cases 'the direction of the transmission is less than certain', although SCOGLIO DEL TONNO, Apulia, is regarded as a possible intermediary in these Aegean/Northern Italian relations. The likelihood of an enclave of Mycenaean traders established at SCOGLIO DEL TONNO is discussed by Vagnetti (1970).

Brea deals with the 'Mycenaean' elements of the Sicilian Thapsos culture, as well as its connections with the Milazzese culture of the Aeolian Islands and the M.B.A. of Malta - the Borg in-Nadur culture (Brea 1966, 116ff; Daniel and Evans 1967, 23ff). At THAPSOS, on the Magnisi peninsula of Eastern Sicily, recent excavations have revealed complex rectangular buildings of 'palatial' dimensions and structure. They appear to date from the phase of greatest commercial activity at THAPSOS, ie. contemporary with relations with Mycenaeans (as is known

from tomb contents, since very few Mycenaean finds are known from the settlement) and with Malta, as indicated by finds within the settlement (Voza 1972, 1973). These large scale buildings (Complexes A and B) with rectangular components, contrast with the indigenous rounded/rectangular houses, which are single units. Associated with the former there are enchytrismoι. The presence of large, locally made pithoi in Area 'c' of Complex B suggests that part of the building was used for storage and its construction was possibly related to collection and storage functions, possibly also preliminary working of raw materials for collection by Mycenaean traders; or the breaking down of bulk commodities brought from the East for distribution in local wares within the Central Mediterranean (eg. oil, wine, etc.).

The stimulation of bronze-working and the exploitation of precious metals in the Western Mediterranean will be dealt with in Part II A, 1. Suffice it to say, at this point, that neither Bass (1967) nor Muhly (1973) have taken sufficient account of the El Argar culture of South-eastern Spain which, as will be discussed below, probably supplied copper, tin, silver and possibly gold to the Central Mediterranean collection points visited by the Mycenaeans.

Muhly (1970) shows the Mycenaean merchants to be the 'active' participants in trade with the Levant and regards the occasional occurrence of Near Eastern items in the Aegean as 'bric-a-brac' (and a few jars of wine or perhaps perfume) brought back by Mycenaean merchants, rather than as evidence for the presence of Levantine merchants in the Aegean. He rejects the possibility of Phoenician merchants operating in the Aegean during the L.B.A. and asserts that 'Homer's Phoenicians are the product of his own day'... 'The world of Homer is the world of Iron Age Greece' (p.63). The copper ingots found outside the harbour of KYME, Euboea - which is thought to have been a major Mycenaean port in the 15th century (Sackett et al 1966, 57) - support Muhly's argument especially since their analysis (Wheeler et al 1975) indicates the use of sulphide ores and therefore a late L.B.A. date of the ingots. But the name 'Phoenician' was applied by Mycenaeans to the dye-workers of Syro-Palestine, using their own term for the dye manufactured in the



Aegean, viz. 'phoinix' (cf. Maisler 1946; Astour 1965). The Mycenaeans visiting and established in the Near East would certainly have had contact with the dye-producing and cloth-dyeing industries, but they were not there to merely obtain dyes or cloth.

Muhly (1970, 36, following Vermeule 1960) proposes that agricultural produce was required by the Mycenaean palace economies and the penetration of the Eastern Mediterranean/Near Eastern trading sphere would have been undertaken in order to procure its supply. Vermeule (1960) bases her argument on: the extensive evidence for Mycenaean presence and commercial activities in the Near East; and on the evidence for the considerable population density in Mycenaean lands from the 15th century onwards. The clinching point is the quantity of Mycenaean products found abroad, far exceeding the known

"luxury" imports - ivory, seals, faience, spices, perhaps textiles - [which] were almost entirely destined for royal and temple treasures, and for tomb-gifts among the wealthy upper classes, their procurement could not have supported the number of wealthy prospectors abroad' (p.66)

which leads her to suggest that perishable materials: essentially metals and foodstuffs, were the major objects of Mycenaean trade abroad.

'It is quite likely that southern Greece could not grow enough food to be self-supporting.' (p.66). Vermeule also points out that in the final phases of occupation, at some Mycenaean centres, eg. at MYCENAE, there are indications of commercial relations beyond the Mycenaean world and that it was the disruption of this trade in the late 13th century that caused the migration from many Mycenaean centres\*.

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\* 'From all these traces of dispersion it is clearly not the Mycenaeans who disappeared, but Mycenaean civilisation.' (Vermeule 1960, 74) She compares this situation with that of Archaic and Classical colonisation, ie. 'emigration and importation' are the 'two classic principles of Greek survival' (p.67). This comparison is not particularly useful since the 'survival' or reproduction of Mycenaean society, with its bureaucratic palace structure, cannot be compared with that of the emergent or even developed polis.



Muhly also recognises (1973) that tin would have been a vital and scarce resource in the L.B.A. and that the Mycenaean bronze industry would have been dependent on either a Near Eastern or a Western European supply. We know that an important bronze-working industry functioned at UGARIT in the 14th and 13th centuries (Drower 1968; Culican 1966, 58-63) and that the cargo of the wrecked ship off Cape Gelidonya included bronze and tin. Wheeler et al (1975) note that the piece of an ingot from the Gelidonya cargo that they were allowed to analyse might have come from the Ergani area of S.E. Anatolia, where copper ores with cobalt contents are known to occur. Cobalt does not appear to be present in known Cypriot copper ores. The Anatolian copper may have reached the coast together with tin which Muhly (1973, 348-9) proposes had come to the Aegean from sources in the West during the 16th and 15th centuries. Only with the re-establishment of international trade in the Amarna period was an eastern supply of tin tapped:

'Thus, during the period 1400-1200 BC, tin came to the Aegean from an eastern source, by way of the Euphrates river from an ultimately Iranian source located somewhere in the general area from Hamadan-Ecbatana to the Caspian Sea.'

(Muhly 1973, 349)

Supplying tin for the bronze industries of the Aegean and Near Eastern L.B.A. is therefore likely to have been one of the mainstays of the Levantine coastal cities' economies. (The value of Iranian tin traded in Anatolia during the Old Assyrian empire was c. seven times that of copper (D. Oates 1968, 32-4; Larsen 1967). With regard to the extent of copper exploitation, it is significant that the Gelidonya ingot analysed by Wheeler et al contained 'massive copper-iron-sulphide particles', implying the beginning of the use of sulphide ores once the weathered oxide, hydroxide and carbonate ores had been depleted (Wheeler et al 1975, 38).

Thus, tin, agricultural produce and to a lesser degree cloth, spices, etc. were the object of Mycenaean expansion into the Near Eastern trading network. It must be emphasised that these are critical resources

for the Mycenaean palace economies and do not represent commodities for elite consumption. Tin and foodstuffs were vital to the very survival of the palace economies: they were, in the case of the former, not available within the Aegean, and in the case of the latter, not produced in sufficient quantities. The distribution of Mycenaean manufactured commodities in the Near East and the virtual absence of Near Eastern commodities in the Aegean would support this view. A different situation is found in Cyprus, where control over copper production by the Mycenaeans resulted in the acquisition and conspicuous consumption of Levantine and Egyptian luxury commodities. This type of accumulation of wealth for elite consumption is not found in the Achaean occupations of KITION when religious control was exercised over the production and distribution of copper, as seen in the intercommunicating workshops and temple and symbolised in the representation of a deity standing on an oxhide ingot found at ENKOMI (Karageorghis 1973).

Thus by the 14th and especially by the 13th century the expansion of the Eastern Mediterranean and Aegean networks and their interpenetration had resulted in the formation of a more complex regional system than found previously. There appears to be a greater dependence for growth by the Mycenaeans on their Near Eastern connections than vice versa, hence Bass and Muhly's argument over the dominant transporter is sterile: the important point is the quality and economic criticality of the material flows in the trade, regardless who the carriers were.

The expansion of this network began in the 14th century when, during the Amarna period, Egyptian territorial dominance began to be undermined, as seen in the formation of alliances by some cities with the Hittites or their dependents. In the second half of the 14th century, Egyptian domination of 'Canaan' declined. In the interior, Assyria regained its independence and began to extend its control over territory to the west, where confrontation with the Hittites and Urartu was developing, according to Drower (1968), for command over trade routes into Syria and Anatolia, for example under Shalmaneser I (1274-1245). Thus, the conclusion of peace between the Egyptian and Hittite empires (ruled by Ramases II and Hattusilis) should be related to the attempts by the



Assyrians to control routes to and the supply of commodities, such as tin, which had become part of the Near Eastern trading network since the beginning of the decline of the Old Assyrian Empire.

This created a situation in which cities could manipulate in political diplomacy for economic advantage, eg. UGARIT's allegiance to and tribute relationship with the Hittites did not interrupt trade with Egypt which continued into the 13th century, cf. letter from king of Tyre about a ship heading for Egypt from Ugarit (see below). With the increase in establishing new alliances, one finds increased competition between Levantine cities, each free to establish and expand their ties and alliances. This freedom of the individual cities to establish new trading partners also facilitated Mycenaean penetration of the regional trade network.

The best evidence for the expansion and flourishing of a Levantine city comes from UGARIT (Ras Shamra), described by Culican (1966, 46) as 'the first great international port'. During the 14th and 13th centuries it operated within a network extending far inland as well as northwards to Cilicia, southwards to Egypt, and westwards to Cyprus and the Mycenaean centres. A letter from the ambassador of Ugarit to the Hittite court to the king of Ugarit illustrates, firstly, the way in which the Hittite king had to be appeased with suitable gifts; and, secondly, the complexity of the regional trading system if lapis lazuli (probably of Afghanistan origin, via Iran, cf. Oppenheim 1969b, 243) was offered to the Hittite king as a gift of the king of Ugarit.\*

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\* Due to the poor quality of the lapis lazuli sent with the ambassador, he is ridiculed by the Hittite king and writes to his king: 'Now try to find good lapis lazuli somewhere and send it to the king so that he will not be angry with you any more.' (MRS 9 RS 17, 383, p.221 in Oppenheim 1967, 136).



From documents found in the Petit Palais and other areas of the site we learn of UGARIT's involvement in complex transactions with its coastal neighbours - some subordinate but most autonomous competitors. A complex set of records were kept in four languages, indicating the presence of traders from many places. An alphabetic script particular to UGARIT is also found. The archives in the Petit Palais record transactions in livestock, grain, oil, milk, fish, cloth and clothes, metals (silver, bronze and copper) (Schaeffer 1962); Drower (1968) refers to export of additional commodities, such as salt, woods, scented oils, etc. There are several references to imports into UGARIT from other coastal cities of commodities known to have been exported from UGARIT, eg. cloth from Byblos and Tyre (Katzenstein 1973, 47); another transaction is recorded concerning the import by the wholesaler ('le grossiste') 'Sukunu' of fish, milk, wool and clothes from Ashdod, for resale (Schaeffer 1962, 142). Grain, wood and copper were brought to UGARIT from surrounding - dependent - towns. The establishment of Ugaritic traders in other coastal cities is indicated by a list of names of people from Ugarit together with ports, such as Arvad, Byblos, Tyre and Ashkelon, in which the king of Ugarit's representatives appear to have had 'droits extra-territoriaux' (Schaeffer 1962, 140ff).

In addition to the vast palace (extending over 2½ acres) with its administrative and production quarters, eg. ivory workshops, the city appears to have been organised into industrial quarters: metal workers, cloth producers and dyers\*, gold and silversmiths, sealcutters; the houses and warehouses of wealthy merchants have been recognised near the city's port. Containers for scented oils and balms were produced in alabaster and ivory on Egyptian models, and their contents too are thought to have been made in UGARIT (Drower 1968).

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\* See Jensen (1963) for the suggestion of seasonal occupation of murex extraction, and Thureau-Dangin (1934) for accounts of the organisation of production.

Barnett (1956a) emphasises the stimulus to craft and artistic production given by the Egyptian pharaohs' needs for luxury items, eg. Phoenicians specialised in the manufacture of wooden furniture and toilet items with ivory inlay. He cites the example of the room in the Egyptian governor's palace at MEGIDDO, c.13th century, in which ivory pieces were found in considerable quantities and which are best paralleled by those used as inlay in Egyptian style beds at UGARIT. Significantly, he regards the collection of these pieces in MEGIDDO as evidence for the royal monopoly on the possession of ivory in Egypt.

The king of UGARIT is said to have paid tribute to the Hittite ruler in the form of cloth and silver (Drower 1968), but the city appears to have maintained its prominent position within the regional trading network by acting as a commercial intermediary between the Egyptian and Hittite powers. Relations with Amurru and possibly the Mycenaeans are also based on silver. Nougayrol (1956, 282) cites a treaty whereby Aziru was given 45 kg of silver by the king of Ugarit, in return for which the people of Amurru would assist Ugarit against her enemies. Balmuth (1971) notes that Egyptian, Assyrian and Ugaritic texts all testify to the use of metal as a medium of exchange, silver in particular:

'The flows of tears in the Ugaritic epics of Aqht and Kit are described as resembling 1/4 shekels or pieces-of-four and 1/5 shekels or pieces-of-five. The fact that two denominations are mentioned in these picturesque similes gives us a hint of pre-weighed money. Scales and weights have been excavated at the site, but the "silversmith's" hoard of silver, as the excavator has named it, consists of random bits of metal.'

(pp.2-3)

The supply of all the silver used in this coastal city may well have been in the hands of Mycenaean traders, who are known to have been tapping the Western Mediterranean for metals, which almost certainly included silver. If inland Asian sources had been the only source, supplies could have reached the Hittite centre and Amurru without the interception of Ugarit. (But, as in the case of lapis lazuli, the trade in silver within the Asian hinterland may have been quite complex.)



The dependence on trade and transport of commodities produced within their own city and obtained from others by resident merchants is illustrated by another document from UGARIT. It records the direct intervention by the king of Tyre to ensure that a ship wrecked near Tyre, and its contents destined for Egypt, were safely returned to the king of UGARIT (Katzenstein 1973, 57). At the end of the 13th century, an appeal for foodstuffs from the Hittite ruler to the king of UGARIT could not be met since the Ugaritic fleet had been destroyed. In fact, UGARIT was never reoccupied after its fall at the end of the period of its greatest prosperity.

Ugarit's 'boom' is probably true to all coastal cities - to differing degrees - representing a pattern of internal growth of the regional system, connected with inland trade and demonstrating the scale of commodity production and exchange by this period. What is known of the internal organisation, viz. the king, the rich 'men of Ugarit' (as would be represented by the residences arranged about the palace (Drower 1968)) and the rich merchants and artisans is paralleled by what we know of other Levantine cities.

The relations between the Levantine cities is seen to be competitive, but there are also indications of contractual arrangements for mutual benefit, eg. the shipwreck incident, the establishment of merchants in foreign coastal cities, and the alliances mentioned in the Amarna letters. The rulers are obviously concerned to maintain access to each others' ports, commodity production, as well as to goods obtained through exchange. Resident merchants were able to participate in exchanges within and between cities and the commercial network of each city was therefore extended over all others (eg. Maisler 1946). Thus, they are seen to have been interdependent within the wider trading network and the basis of their co-operation is clearly safeguarded by contracts and agreements and even intermarriage between the kings and between their representatives. The regional trading system, although based on the same principles as before, was greatly expanded by the growth during the 14th and 13th centuries of both maritime and inland networks.



The collapse of the regional system in the 12th century, attributed to various natural disasters (including droughts, earthquakes etc) and movements of people will not be discussed here. (See for example Barnett 1969, Vermeule 1964; and discussions in all publications concerned with the early 1st millenium in the Near East.) Barnett. (1956a) points to the beginning of the generalised use of iron at this time, which would have involved a change in the value of metals, as an important factor in the disruption of the trade network.\*

In fact, the reverse is also possible, that is with the breakdown in the distribution of bronze or its component metals, the use of the more generally available iron ores was stimulated.\*\* The use of iron ores by Chalcolithic copper smelters in Timna, Israel, has been noted by Rothenberg (1972, 232). The Late Bronze Age copper smelting technology at Timna appears to have remained relatively simple, according to Weisgerber (1975). Cooke and Aschenbrenner have recorded 'high iron-coppers' from several Mediterranean centres, eg. Nichoria and Kea in Greece, and two finds - of the 13th and 6th centuries - from Sardinia: they regard the scale of their research, to date, to be too limited for any general conclusions to be drawn with conviction (1975).

From now on, the only independent part of Canaan was the central coastal strip: Phoenicia, about 1/10 of the original area of Canaan (Albright 1961), since new populations had settled in the south (the Philistines and Tjekker) and inland (Hebrews and Aramaeans). The Phoenician cities are thought to have been destroyed, as were UGARIT and ALALAKH, and their inhabitants to have survived by taking to the sea in their fleets, later refounding their cities from Sidon (eg. Katzenstein 1973, ch.IV).

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\* He also suggests some Phoenician involvement in the movements of the Sea People based on Phoenician details of some depictions of Sea People's ships (Barnett 1957, 58) at ZINJIRLI.

\*\* I should like to thank Bob Miller for drawing my attention to this counter-argument.

3 The evolution of the Phoenician city-states within the Western Asiatic regional system, with special reference to external relations

The only definite evidence for destruction and abandonment comes from UGARIT and whilst this is potentially a circular argument, it would seem to be significant that the only Levantine city that is known to have been destroyed and abandoned was never re-occupied. It is clear that Ugarit was never 'typical' of the coastal trading cities in that it was territorially defined within its own hinterland and possibly vassals (following Nougayrol's interpretation (1956) of Ugaritic texts) and hence structurally more prone to disruption. Thus, a case can be made for the Phoenicians having a more adaptable strategy available to them in conditions of external strife: their dependence on ships to import foodstuffs, rather than on land and population to produce them, emphasised the necessity to preserve their fleets. Since this can be relatively easily done - by moving them - the capacity to survive disruption and re-establish settled urban life is increased. It can even be suggested that the traditional accounts of the abandonment and refounding of the Phoenician cities probably refer only to temporary evacuations in the face of external conflict, and probably never implied a serious interruption of the commercial and urban life of their populations. Pritchard has not found any evidence of abandonment at the transition from the L.B.A. to the I.A. at SAREPTA (Sarafend) (1975, 10).

This interpretation is more consistent with the other evidence for urban development in Phoenicia - particularly Tyre - during the 12th and 11th centuries. It is first of all established that a series of technical developments were introduced for the more secure maintenance of large urban populations in marginal ecological conditions. One of the most significant of these innovations is thought to be the use in the Phoenician cities of lime plaster for lining cisterns so that fresh water could be stored. (This would, incidentally, be a significant technical precondition for the later establishment of new settlements in similarly harsh environments.) Albright (1961) attributed the Phoenicians with the 'invention' of lime plaster lining for cisterns but evidence from TAANACH, Israel (Glock 1972 ms.) cites evidence for a 'waterproof



lining' of a L.B.A. I (15th century) cistern, thus 'opposing the canonical view that it was an invention near the beginning of the Iron age'.\* A number of references to this period suggest that the Phoenician cities were the recipients of new population elements, eg. Albright (1961, 341) refers to

'... the invigoration of the decadent Canaanite stock by fresh blood, especially from the hardy mountaineers of Syria and the equally hardy peasants of northern Israel, who were drawn into Phoenician service by its tempting emoluments.'

Leaving aside his moral judgments, Albright's observation of the attraction of the coastal cities to the inhabitants of the inland areas is significant, and should be amplified by a consideration of the increased scale of production, and other activities, in the Phoenician cities that demographic increase permitted.

During this period, therefore, we see a number of apparently independent but in reality highly interdependent phenomena taking place. These are: the contraction of population into a smaller number of centres in a reduced but independent area; an artificial accretion of population from external sources - such as the Danites - to supply an increasing demand for labour; and lastly, a number of technical innovations for the maintenance of large urban centres. These developments can, in turn, be related to technical and economic changes in the wider Phoenician economic system.

As an indication of the expansion of bulk carrying trade, we can point to the development in this period of the large, heavy merchant ship (Katzenstein 1973, 70ff). Katzenstein refers in particular to the use of an iron technology for this development. We should not forget Wen-Amon's account (Breasted 1905 and 1923; Leclant 1968) of ships of this nature already found in considerable numbers in the early 11th century; even if

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\* For this reference too, I am indebted to Bob Miller.



the account is somewhat exaggerated the reference by the king of Byblos to 10,000 ships (Breasted 1905, 514; 50 according to Leclant 1968, 10!) owned by a Sidonian merchant resident in the Delta at Tanis, is indicative of the scale of merchant shipping in operation at this time. The organisation - in particular in terms of the 'habur' - will be discussed below.

Of equal importance perhaps is the wide dissemination in this period of the Phoenician alphabet; used to record commercial transactions and in administration, eg. the king of Byblos had precise records of past transactions with Egypt, and 500 rolls of papyrus were sent to him by the king of the Delta. Riis describes the Phoenician script as a 'kind of shorthand ... perhaps invented primarily to facilitate mercantile intercourse' (1970, 174). And Barnett (1957, 60) attributes the invention of the abacus to the Phoenicians.

Barnett (1957, 59 note 1) also refers to the worked and half-worked ivories at KOUKLIA (Palaipaphos) on Cyprus (Megaw 1954), indicating a 'flourishing trade' here in the 12th and 11th centuries. There is also a suggestion by Müller (cited by Katzenstein (1973, 86)) that the Cypriot princess mentioned in Wen-Amon's account had a Phoenician name.

Significantly, Leclant (1968) regards Wen-Amon's voyage as a 'mission commerciale' to get wood for the building of the sacred boat of Amon and therefore 'avec égards par les princes phéniciens, on expédia une statue d'Amon appelé "Amon-du-chemin", Ounamon n'étant que "l'ambassadeur humain".' But this voyage can also be viewed as an attempt to re-establish commercial relations between Thebes and the Phoenician cities. Since the Phoenician cities had established relations with the Delta they appear to be less interested in entering into trade relations with Thebes than, as would appear from Leclant's account of the 'honneur' shown Wen-Amon at Dor, were the Tjekker. However, since relations were clearly not yet regulated, they were able to rob him, as well as feast him. By contrast, the Prince of Byblos, when asked by the Tjekker to hand over Wen-Amon, replied '... il m'est impossible d'arrêter l'envoyé d'Amon dans mon pays' but he was sufficiently disinterested in

the representative of Amon outside the area which he controlled:

'Laissez moi l'expédier, puis courez après lui pour l'arrêter'!

(Leclant 1968, 11).

The nature of the requirements of the rulers of the Phoenician cities is illustrated by the list of items sent from the Delta to the prince of Byblos: manufactured goods, such as gold and silver vessels; fine 'royal' linen garments; rolls of linen from Upper Egypt (according to Leclant); ropes, papyrus; ox-hides; and foodstuffs, ie. lentils and fish. (Wen-Amon received 5 rolls of Upper Egyptian linen and lentils - probably for exchange and consumption on the homeward voyage.) The Phoenicians were therefore receiving the very luxury commodities which they later came to produce themselves, or at least 'export', whilst their major resource was then - as earlier and later - timber.

Wen-Amon's voyage represents the balance of power in the Eastern Mediterranean at this time in the sense that he is only one of a series of emissaries sent by Thebes to re-establish commercial contact with the Phoenician cities. Because of his low status and lack of gifts he is placed in a very subordinate position vis à vis the king of Byblos; the same occurs in his subsequent visit to Cyprus. The problem, therefore, is that given the disruption of the former trading network and the relative unimportance that a Phoenician city like Byblos attaches to a representative of its former ruler and major trade outlet, the implication we must draw is that a new regional configuration for commercial opportunity had developed by this period. (The isolation discussed above is not limited to Egypt but applies to some extent to Cyprus (eg. Åstrom & Åstrom 1972, 78) and to the Aegean.)

It is no coincidence that at the same time as the resurgent economic power of the Phoenician cities occurs, we see the foundation of the Aramaean states of North Syria and the first major expansion of Assyria, known from a document from Assur recounting the first western venture of a Neo-Assyrian king, Tiglath Pileser I:



'I went to the Lebanon (Lab-na-a-ni). I cut (there) timber of cedars for the temple of Anu and Adad, the great gods, my lords, and carried (them to Ashur). I conquered the entire country of Amurru. I received tribute from Byblos (Gu-bal), Sidon (Si-du-ni), and Arvad (Ar-ma-da). I crossed over in ships (belonging) to Arvad, from Arvad which is on the seashore, to the town Samuri which (lies) in Amurru (a distance of) 3 double-miles overland. I killed a narwhal which they call "sea-horse" on high sea.'

(translated by A. L. Oppenheim, in Pritchard 1955, 275)

On his journey through Amurru, not only does Tiglath Pileser I receive 'tribute', but he is feted by the cities of Syria, and in particular Phoenicia. This should not be regarded as a campaign of military conquest (Winter 1973, Moscati 1968). But the contrasting attitudes of the Phoenician cities to the representative of Amon, on one hand, and the representative of Assur, on the other, are seen in the demands for equivalent payments from the Egyptians and the offering of gifts, hospitality and even timber (the Phoenicians' most valued asset) to the Assyrian king. The ascendancy of Assyria - although interrupted for c.75 years - was maximised from the start by the Phoenician cities. This would also serve to demonstrate the desirability of strong economic ties with a major power, even if politically they appear to be ties of dependence, on the part of the Phoenician cities. As has been shown for the L.B.A., these economic ties were vital to the functioning of the Phoenician city state economies.

An initial phase of alliance of the Phoenician cities with the immediate hinterland can be recognised in the biblical references to the relations of Hiram I, of Tyre, with the first kings of Israel, David and Solomon. In addition to accounts in the Old Testament, we have records of this relationship in the works of the Jewish historian Flavius Josephus written in the 1st century A.D. using the writings of Dios and Menander of Ephesos who had had access to the annals of Tyre. (Fully discussed in Katzenstein 1973, 77-84).

Before the unification of Israel, the Phoenicians are thought to have been associated with the Philistines in conflict with the Israelites and their 'friendship' is attributed to a change in 'foreign policy' by

Abibaal of Tyre in the early 10th century (Katzenstein 1973, 74). Thus, when the Philistines were defeated on land by David, and possibly on sea, the Phoenicians were able to expand their maritime trade network connected with inland trade with the Israelites, without Philistine competition. It must be emphasised that it was through alliance with Israel - the expanding territorial power - that the security of Phoenicia was achieved (eg. Albright 1958; Katzenstein 1973, 97) and that access to inland trade routes to Anatolia, Syria, Arabia and Aqabah and even Egypt was achieved. The expansion of the Israelite kingdom as far as the Euphrates under king David was consolidated and continued by Solomon, who rebuilt conquered cities, such as Palmyra, established 'cities of store-houses', and an Israelite port with public buildings and storehouses was established on what was previously a Philistine settlement (Culican 1966, 71-76).<sup>\*</sup> Thus a close alliance between the Phoenician cities and the kingdom of Israel implied control over the Philistines and good relations with Egypt too.

Although Bunnens (1976) relates all the accounts of relations between Hiram I and David and Solomon to a series of gift exchanges, the unambiguous contractual nature of the exchanges entered into by Hiram, representing the 'Sidonians', and Solomon are evident in this passage from I Kings V, 1-11:

'Now Hiram King of Tyre sent his servants to Solomon, when he heard that they had anointed him king in place of his father; for Hiram always loved David. And Solomon sent word to Hiram, "You know that David my father could not build a house for the name of the Lord his God because of the warfare with which his enemies surrounded him, until the Lord put them under the soles of his feet. But now the Lord my God has given me rest on every side; there is neither adversary nor misfortune. And so I purpose to build a house for the name of the Lord my God, as the Lord said to David my father, 'Your son, whom I will set upon your throne in your place, shall

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\* Solomon appears to have come to an agreement with the pharaoh over Israelite occupation of Philistine territory and the degree of their co-operation is illustrated by the unique case of a daughter of a pharaoh given in marriage to a foreign ruler (Malamat 1963).



build the house for my name.' Now therefore command that cedars of Lebanon be cut for me; and my servants will join your servants, and I will pay you for your servants such wages as you set; for you know that there is no one among us who knows how to cut timber like the Sidonians.

When Hiram heard the words of Solomon, he rejoiced greatly, and said, "Blessed be the Lord this day, who has given to David a wise son to be over this great people." And Hiram sent to Solomon, saying, "I have heard the message which you have sent to me; I am ready to do all you desire in the matter of cedar and cypress timber. My servants shall bring it down to the sea from Lebanon; and I will make it into rafts to go by sea to the place you direct, and I will have them broken up there, and you shall receive it; and you shall meet my wishes by providing food for my household." So Hiram supplied Solomon with all the timber of cedar and cypress that he desired, while Solomon gave Hiram twenty thousand cors of beaten oil. Solomon gave this to Hiram year by year.\*

Moscatti (1968, 32) cites confirmation of this account in Josephus (Ant. Jud. VIII, 141) which states that Hiram needed grain, wine and oil because he inhabited an island.

The basis of the alliance can be seen to be the exchange of technology, services, natural resources and manufactured commodities: Tyre exported technology, skilled craftsmen and commodities in which skilled labour or some manufacturing processes had been invested; Israel provided foodstuffs, natural resources, and the essential access to its allies and dependents. This is confirmed by other passages in the Old Testament (eg. II Samuel V, 11, and I Chron. XIV, 1): Hiram supplied materials and skilled labour to build king David a house (in the 2nd quarter of the 10th century). Harden (1971, note 204) believes that conditions similar to those described above may have been attached to Hiram's aid, and Katzenstein (1973, 95) regards Hiram's aid as 'partial payment for the use of roads to the east and south'. But, this 'exchange' probably represented an initial phase of the alliance between Tyre (which

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\* All the quotations from the Old Testament are from The Oxford Annotated Bible, Revised Standard Version, New York, 1965.

was not yet the dominant city of Phoenicia) and the emergent kingdom of Israel, which was to mature in the reign of Solomon, when the secure conditions attributed to his reign had been established and ambitious temple building and other projects could be contemplated based on contractual relations with formerly loosely allied neighbours, and, in some cases, corvée labour and the provision of slaves (cf. Mendelsohn 1942).

The relevance of the contractual nature of the relationship between the rulers of Tyre and Israel is that it could have been replicated by similar contractual arrangements between Phoenician and Israelite partners of lesser political rank. There is considerable evidence for trade in the occurrence in Israelite cities, in 10th and 9th century levels, of Phoenician 'Samaria Ware' (red-burnished), black-on-red, and other Cypro-Phoenician Iron Age wares (Culican 1966, 76). Harden (1971, 48-9) and Culican (1966) both refer to the activities of Phoenician craftsmen in Israelite towns, like Samaria and Megiddo, in the same period.

Further details of the Phoenician-Israelite economic interconnections are given in the frequently quoted passages describing the joint ventures of Solomon and Hiram I from Aqabah (I Kings IX, 26-28; I Kings X, 11; II Chron. VIII, 17). The account in Chronicles begins:

'Then Solomon went to E'zion-ge'ber and Eloth on the shore of the sea, in the land of Edom. And Hiram sent to him by his servants ships and servants familiar with the sea, and they went to Ophir together with the servants of Solomon, and fetched from there four hundred and fifty talents of gold and brought it to King Solomon.'

But the account in I Kings X, 11 differs from the above in that it refers solely to '... the fleet of Hiram, which brought gold from Ophir' also 'brought from Ophir a very great amount of almug wood and precious stones'. From both versions it is clear that Phoenician access to the ports of the Red Sea, and thence the land of Ophir, depended on participation - or at least authorisation - of Solomon; Solomon's representatives were probably involved in the venture, if only in its preparation.



There is no consensus as to the location of Ophir: Harden, Culican and others believe it to be in Arabia; Albright and Katzenstein locate it in Somaliland; Barnett (1957, 168) makes a convincing argument for its location in India (which Muhly supports) on the basis of linguistic evidence. The correct location of Ophir in India would be supported by the evidence for the interruption in this trade once the economic power of Assyria and Babylon were re-established.\*

There is general acceptance of the inscription on a sherd found in levels dated to the 8th century from TELL QASILE referring to 'gold from Ophir' reaching Israel (eg. Barnett 1956a, Culican 1966, 77). But, direct access to this source of gold in India, Arabia or Somaliland is unlikely to have been available to Phoenicians in the 8th century.

Another 'joint venture' at this time, within the Eastern Mediterranean, is suggested by the trade in horses mentioned in I Kings X, 28-9 and II Chron. I, 16-17 as being the prerogative of royal merchants in Israel. Tyre probably played an important role in supplying these horses from Cilicia (Katzenstein, 1973, 113-4, following Albright). Also, through the kingdom of Israel and via trade routes beyond the Euphrates, the Phoenicians would have had indirect access to both Mesopotamian resources and demands.

Thus, the traditional expansion of the Near Eastern trading network eastwards to India (cf. Muhly 1973) was nominally in the hands of Solomon\*\* but in reality a Phoenician - essentially Tyrian - venture. This is the period in which Tyre began to dominate Sidon and Byblos (eg. Moscati 1968,

\* eg. the reference in I Kings XXII, 48 to the failure of King Jehoshaphat of Judah to sail to Ophir for gold in 'ships of Tarshish', 'for the ships were broken at Ezion-Geber'. This could refer either to the closure of the eastern trade route, or to the failure of the venture without Phoenician sailors and navigators. eg. Barnett (1957, 168): the prosperity of Ezion-Geber 'depended on a powerful alliance of Israel and Phoenicia, which after Sennacherib's campaign was broken'.

\*\* The credit given to Solomon for this venture is comparable with the role attributed to pharaoh Necho in the late 7th century for the Phoenicians' voyage around Africa described in Herodotus.

31). It is not possible to dismiss the traditional views that Hiram I 'created the greatness' of Tyre; the expansion of direct and indirect trading opportunities was the foundation of this greatness. (The other aspects of Tyrian expansion will be discussed below.)

The possibility of westward expansion in the 10th century is based on acceptance of the references to 'Tarshish' as a source of the silver, iron, tin and lead reaching Tyre, as found in Ezekiel (XXVII, 25ff); another in II Chron. IX, 21, and the following account from Kings:

'For the king had a fleet of ships of Tarshish at sea with the fleet of Hiram. Once every three years the fleet of ships of Tarshish used to come bringing gold, silver, ivory, apes and peacocks.'

(I Kings X, 22)

But, the 'ships of Tarshish' are regarded as the type of ship used in long voyages, such as to Ophir, by the Phoenicians (cf. Barnett, Harden, Moscati etc.). The location of 'Tarshish' is much disputed: eg. Barnett (1956a, 91; 1958) and Carpenter associate 'Tarshish' with Tarsus in Cilicia; Harden is one of many who (1971, 151) locate 'Tarshish' in Spain, which is regarded as the source of the metals, suggesting that the other items could have been brought back to the Eastern Mediterranean from North Africa. (This issue will be discussed more fully below, in Part II B 1.)

Albright (eg. 1941, 21) believes that 'Tarshish' means 'Smelting plant' or 'mine' as referred to on the Nora stone, and that Tarshish was Sardinia. Nieman (1965) believes that there would have been many sites founded by Phoenicians named 'Tarshish', just as there were many called 'Qart-hadasht', 'New town': ie. 'Tarshish' simply means 'foundry'. To Culican: '... the name Tarshish referred in Solomonic times to the west Mediterranean mining areas in general, and more particularly to the metal-bearing areas of Tuscany, Sardinia and Spain' (Culican 1966, 116).



The location of Tarshish in the western Mediterranean is part of a more general thesis regarding the date of Phoenician 'colonisation', which Albright (1941, 1958 etc) and his followers (eg. Katzenstein 1973, 76) date to the 10th and 9th centuries. Their views and the traditional accounts of classical writers used to support their views will be considered below in the context of the Western Phoenicians. Here, the collaboration of Phoenician merchants with Israelite merchants, including royal merchants, is significant. The supplies were obtained through maritime trade connections, and were carried in the merchant ships 'of Tarshish' which the Phoenician cities had developed and for which they were later renowned (eg. Février 1950; Barnett 1958; Lloyd 1975). It should be noted that the biblical references are to the 'ships of Tarshish' and only in one instance - II Chron. IX, 21 - does 'Tarshish' refer to the destination of the ships. 'The picture of Phoenician ships returning from Iberia laden with copper is one sustained only by the imagination of modern scholars.' (Muhly 1973, 183)

During the reign of Abibaal - the father of Hiram I - a Tyrian colony is thought to have been established at KITION on Cyprus. Katzenstein (1973, 84-6) discusses the possibility that the people of Kition were ruled by a Tyrian or a Tyrian appointed governor installed in the 'court of the local king'. Hiram is said to have quelled a revolt by the 'Itykaians' and re-established the tribute relationship. However, archaeological evidence, eg. from the sacred area of KITION where the largest known temple of Astarte dates from the mid 9th century (Karageorghis 1973). Masson and Sznycer suggest that there must have been an appreciable Phoenician settlement on Cyprus during the late 10th century to warrant the menacing inscription on a Phoenician tomb, known as the Honeyman inscription, which is the earliest Phoenician inscription from Cyprus and is dated to c.900 (1972, 20).

Thus, one of the places visited by the 'ships of Tarshish' may have been Cyprus, which would have been a vital source of copper and possibly other materials in the 10th century.

The alliance between Tyre and the kingdom of Israel represents the linking up of a maritime and a territorial power which created a new pattern of economic interdependence in the Near East. Israel had gained control of land routes southwards, to the Red Sea and Arabia, and northwards to Anatolia and Mesopotamia, and the Phoenician cities used the territorial state to expand their own inland trade and extend their maritime trade in an eastern direction. Culican (1973) relates Phoenician involvement in the overland trade with Arabia in Solomon's reign with the incense trade; the burials at TELL ER-REQEISH, in the Gaza region, represent a later (9th century) trading post on this route. Harden includes ER-REQEISH and BETHPELET as two of many 'staging posts' which would have been established on the trade route between Phoenicia and Egypt (1971, 55).

The language of diplomacy of the relations between Tyre and Israel camouflages the economic significance of the alliance as recounted in the Old Testament. Bunnens (1976) regards the interaction between the two kings as political exchanges of gifts and rejects the notion of a formal treaty as the basis for their relationship, as proposed, eg., by Katzenstein (1973). But, the economic expansion of the Phoenician cities was only possible through political alliance, which had to be reinforced by the exchange of gifts and services (as described in the Bible) and confirmed by intermarriage: Hiram's daughter was one of Solomon's 'Sidonian' wives. The cultural interdependence emerges when we consider that Solomon's temple was built according to a Phoenician plan; Solomon adopted certain aspects of Phoenician cult, some of which survived the division of the kingdom; and the probable introduction of record keeping to the Israelite court by Phoenician scribes (Katzenstein 1973, 77).

The expansion of the city of Tyre, traditionally attributed to the 'greatness of Hiram I', represents a later phase of the urbanisation process begun in the 11th and 10th centuries. The island of Tyre was extended by the additions of embankments to enlarge the port and its market place, and the island, on which the older temple of Heracles (Ball Shamên) stood, was linked to the island by a causeway. The temples of Heracles (Melqart) and Astarte on the main island were rebuilt, and adorned, and a palace was built (Katzenstein 1973, 77-94).



The development of the fishing, weaving and dying industries and workshops for bronze and ivory are thought to have taken place within the confines of the city. The presence of Danites and Gebalites among the Tyrian workforce in Israel can be assumed to reflect their involvement in manufacturing industries and construction projects in Tyre. Thus, instead of regarding this phase as one of political domination of the Phoenician cities by Tyre (eg. Albright 1961), it should be seen as the crucial phase in the process of urbanisation which culminated in the development of a commercial city state in Tyre. This can be defined by the contraction of the majority of population within the city limits; the centralisation of manufacturing activities within the city; the definite break of the dependence of the city on its immediate hinterland (and hence on a dependent rural population); the dependence on imports of basic foodstuffs and raw materials, obtained through exchange of manufactured commodities and services.

The biblical account of Hiram's refusal of Solomon's offer of 20 Galileen cities (I Kings IX, 11) illustrates this pattern of Tyrian economic organisation; Hiram declines Solomon's offer but is careful not to break relations with him by sending him 120 talents of gold.\* It would appear that territorial expansion, particularly inland - would have drained rather than supplemented Tyre's resources. This is an indication of the primarily commercial maritime interests of Hiram as opposed to desires for territorial expansion and control over land and population as a source of wealth. This reluctance to own land by the commercial city-state is analogous to the situation in the late phase of European feudalism when merchant bankers resident in the cities could cull the surpluses of the land in exchange for luxury commodities obtained through long distance trade, but were reluctant to take possession of landed estates for non-payment of debts (eg. Duby 1974, 150-4).

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\* This account is contradicted by the later version in Chronicles. The account in Kings is usually discussed in terms of 'payment' by Solomon for Hiram's aid in building the temple, eg. Bunnens (1976); but Hiram's refusal and his gift of gold are not explained. The episode does not support Katzenstein's view that Tyre was interested in territorial expansion (1973, 106-7).

Following the death of Solomon (c.931) and the division of the kingdom, the Egyptian pharaoh, Shoshenq I (c.945-924) who had contributed towards this rupture, began a series of campaigns against Israel and Judah (eg. Kitchen 1973, 294ff), but he was sufficiently 'shrewd' not to attempt any 'unrealistic "prestige" thrusts ... into Syria or Phoenicia' (p.300). Leclant (1968) notes that trade between Egypt and Babylon continued throughout this period and was carried out by his successors too. Kitchen attributes the amazing wealth of gold, silver and lapis lazuli gifts to the temples of the major deities in the reign of Osorkon I (c.924-889) to the 'link with Byblos, the subdued state of Philistia, and inability of the Hebrew kingdoms to compete' (1973, 303, note 330). He also refers to the stela set up in Byblos by Osorkon I, subsequently embellished by Elibaal (pp.308-9). A statue of Osorkon II (c.874-850), at the beginning of the 22nd dynasty, marks the resumption of Egyptian relations with Byblos. Alabaster vessels with his seal were found at Samaria, in the place of Omri and Ahab, indicating the re-establishment of relations with the Israelites, contemporary with the re-alliance and inter-marriage - of the kings of Tyre and Israel.\* Kitchen regards

'the presence of such objects as an alabaster presentation vase (once filled with valuable ointment?) in the palace at Samaria (as) part of the gifts of an Egyptian embassy to the court of Ahab and Jezebel'

(1973, 324)

indicating the beginning of an Egypto-Israelite alliance which was to last for over 100 years. The alabaster urns with seals of Osorkon II, Takeloth II and Shoshenq II found in ALMUNÉCAR (eg. Leclant 1970; Culican 1970c; Pellicer 1962; Gamet-Wallert 1973) will be dealt with in Part II B.

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\* Jezebel, daughter of Ittobaal of Tyre, was married to Ahab, son of Omri; their daughter was given in marriage to Joram of Judah. According to Moscati, both Ahab and Joram adopted the cult of Baal (1968, 34-5).



Phoenician ivories were also found in the palace of Omri in Samaria (cf. other 9th century major cities, Barnett 1948). Barnett cites the condemnation by Amos of those who 'lie upon couches of ivory' and live in 'houses of ivory'. Another instance of 'royal' use of ivory is known from the tombs of SALAMIS, Cyprus, of late 8th and 7th century date (Karageorghis 1969, 1974): it is significant that the use of ivory here is associated with that of characteristic Phoenician red slip wares. And in the prophecy of Ezekiel, we have further recognition of collection of 'surplus' by the 'kings of the earth' which they exchanged for luxury, sumptuary items for their own consumption when the 'surplus' of agricultural produce should have been redistributed among the population of the kingdoms:

'When your wares came from the seas, you satisfied many peoples; with your abundant wealth and merchandise you enriched the kings of the earth.'

(Ezekiel XXVII, 33)

The 'merchandise' would have included: 'fine linen, dyed and embroidered cloth, tapestries, carpets, glass and faience bowls, vessels of bronze, silver and other sorts of metal-work, wines, musical instruments, incense, spices, foods and seeds' (Barnett 1957, 60, including the items mentioned in Autran (1920)). As Brown has pointed out, the items of tribute listed on the inscription of Ashurnazirpal at Calah (cf. Pritchard 1955, 266) are all imports or manufactured products made with imported raw materials (Brown 1969, 191).

During the 9th to 7th centuries, we are dealing in the Near East with a new regional trading system, reaching from north-west Iran and the Persian Gulf to Central Anatolia and the Eastern Mediterranean coast. The political and economic domination of this trading system by the Neo-Assyrian empire is known from Assyrian (and other) records as well as archaeological evidence. The references to Assyrian political domination are mainly from public records which were intended to glorify the king as representative of the god Assur, in whose name all Assyrian territorial expansion and political subordination was carried out (eg. Lambert 1974).

The members of the trading system were interconnected by a complex series of overland and maritime trade routes and the ability of the Assyrians to maintain their dominant role in its functioning (for which their kings received vast quantities of gifts, often recorded as tribute) was constantly tested by the states situated strategically for command of important routes or resources, especially Urartu (cf. Barnett 1956b). What Hallo (1960) describes as the 'almost inevitable rebellion' that faced the Assyrian kings on their succession can be regarded as the jostling for greater involvement in and control of the overall trading system by local alliances on the peripheries\*. During the reigns of Ashurnazirpal II (883-859) and Shalmaneser-III (858-824), the borders of the Assyrian empire were extended in all directions but it became impossible for all the new territories to be controlled and there followed a period of decline in Assyrian authority in which the western states reasserted their independence. Rostovetzeff attributes the beginning of the organisation of the caravan routes still operating in the Persian period to the neo-Assyrian kings, who organised special caravan routes for merchants - in addition to those for the army - eg. from the mouth of the Euphrates across the desert to Damascus, and into Arabia (1932, 16).

Levine, in an unpublished manuscript quoted by Winter (1973, eg. p.123 note 169), has related the decline of Assyria between 824 and 744 to the control by Urartu of the eastern trade routes. The power of Elam in northwestern Iran during the 9th and 8th centuries rivalled Assyrian power and wealth and Urartu's connections with Elam are indicated by the transmission of Elamite products and cultural elements westwards (cf.

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\* According to Baramki, the establishment of Assyrian 'rule' in the west in this period 'led a large contingent of Tyrians and Sidonians to leave their homeland and found a new city (Kart Hadashah) at Carthage' leaving a pro-Assyrian king to rule Tyre (1961, 28). Neither texts nor archaeological finds from Carthage support this view. If internal conflict had led to the expulsion or voluntary exile of some elements of the city, at this early date, Kition (the original KART HADASHAH according to many authorities, eg. Forrer and Frézouls), was a more likely destination. The actual process of population fissioning within the city should not be dismissed.



Barnett 1956b). Furthermore, an alliance between the kingdom of Urartu and the north Syrian states extended their control of trade westward to the Mediterranean and northwards through Cilicia and Central Anatolia to the Black Sea (Winter 1973, Barnett 1956b). The distribution of Syrian ivories in the 9th century from Iran to the Aegean illustrates this trading sphere (Winter 1976, fig.1 and p.17).

The fortunes of the Phoenician cities in this period were clearly linked with the political status of the divided kingdom of Israel and in turn to Assyria. During the mid 9th century, two confederacies are recognised in the western lands: the North-Syrian alliance of '12 kings of the sea coast' that was formed to meet Shalmaneser; and the alliance of Damascus, Judah, Israel, the Phoenician cities with Cilician, Egyptian, and Arabian contingents (Hallo 1960), which held back Shalmaneser in 5 campaigns at Qarqar. The internal breakdown of the southern confederacy made conquest by Shalmaneser possible (Lambert 1974).<sup>\*</sup> There followed a period of conflict between Damascus and Judah, Israel, Philistia - probably over control of the southern trade routes since trade relations continued to function between Damascus and Israel in this period with merchants resident in each other's capitals, and Tyrian merchants having their own quarter in Jerusalem (Winter 1973, 442).<sup>\*\*</sup> This would have affected the security of Phoenician access to overland trade routes as well as jeopardising Assyria's access to the Mediterranean coast which was blocked further north by the Syrian-Urartian complex.

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<sup>\*</sup> Kitchen (1973, 325-7) notes that from then on, during the reign of Shalmaneser III, Egypt paid some form of tribute, but no further accounts of direct conflict are known until the reign of Esarhaddon.

<sup>\*\*</sup> Although the tribute list of Adad-Nirari III (810-783) (Pritchard 1955) is generally regarded as unreliable with regard to domination over the western countries, the detailed description of the gifts from Damascus and the list of only southern alliance states may reflect an attempt by the southern alliance to re-establish the trade with Assyria which would undermine the dominance of the northeastern route under Urartian-North-Syrian control.

At this stage, the trade route from Urartu to Carchemish, and other North Syrian cities (S. S. Smith 1942) was dominant. This was to have considerable effect on the Assyrian economy which, by this time, was highly commercialised.

This aspect has been brought out by Oppenheim (1964, 89), who distinguished between the structure of the Mesopotamian city-state economy based on credit transaction, capital investment and usury, in support of a storage economy, contrasting with the 'goods in kind' type of exchange in which profit is made through turnover which, he says, characterises the economies of the Western states. Elsewhere, Oppenheim refers to the economic structure of Mesopotamia as an inevitable symbiosis between palace and trader; the former being dependent on the latter for the import of essential raw materials as well as luxury goods and the trader needing the palace for protection and international contacts (1969a). These points are expanded by Diakonoff who characterises the peoples of the periphery of Western Asia at the beginning of the 1st millenium BC as practising his economic sub-type Ib (1969, 14). By this he means an in-kind economy which did not require any imports from the developed countries (eg. Babylonia) except for luxury items and money was not used to facilitate exchange. Assyria and Babylonia, on the other hand, required raw materials, particularly timber and metals, to feed its developed agriculture and handicrafts and to sustain production for long distance trade. Perhaps more significantly, the early 1st millenium BC witnesses the expansion of a moneyed economy in Mesopotamia with the charging of interest on loans, and exchange based on credit transactions constituting the means by which palace and trader interacted and trade between Mesopotamian cities was conducted (Diakonoff 1969). Hence, as Diakonoff notes, under the existing conditions of international trade an equivalent exchange of goods between Mesopotamia and the western economies could not be arranged: '... the "in-kind" households of the periphery did not need money since it could not be invested, neither did they need the produce of the developed countries, at least not in amounts equivalent to the demand on their own produce.' (p.28).



As a consequence of this significant observation Diakonoff proceeded to characterise Assyria as a 'warrior empire', imposing forcible exchange through tribute and looting as a solution to these inequalities in exchange. However, as Oppenheim has argued, this seems to ignore all the evidence for Assyrian trade in the west during the early 1st millenium and the importance of control over trade routes as significant factors dictating Assyrian foreign policy (1969a, 36; 1969b). (This is also discussed by Winter 1973, 438ff.) Oppenheim shows quite forcibly how '... the very nature of the goods which the Assyrian kings called tribute showed that they were destined for trade channels' (1969a, 37). Also, tribute was clearly seen as an economic imposition in order to re-orientate economic activity and trade to Assyria and hence was regarded by the Assyrians as a symbolic representation of the facilitation of long distance trade. In a letter (ABL347) referring to 4800 pounds of red-purple wool and 420 pounds of dark purple wool coming from the west, we have evidence for this 'commercial importation of the same commodities as were acquired through the 'forcible exchange', ie. booty and tribute (Oppenheim 1969b, 246). But the Assyrians refer frequently in tribute lists to 'garments made of linen with multicoloured decoration' which together with the finest Egyptian linen were of 'prestige value' in Assyria and later Babylonia.

'All the conquered or threatened kingdoms from Carchemish to the Mediterranean coast had to deliver large quantities of such apparel to the Assyrian kings who distributed these obviously very fashionable "Western-style" garments among their officials, as is illustrated by a well-known letter from Sennacherib as crown prince to his father, ABL 568.'

(Oppenheim 1969b, 246)

Oppenheim uses the references to the production of fine garments from Ezekiel XXVII, 24 and their repute in 6th century Babylonia to suggest that Tyre and the other Phoenician cities probably dominated the production of these garments. It can also be suggested that the wool and ivory paid as tribute to the Assyrian kings by Babylonian rulers would have been acquired initially from the Phoenician cities and their caravan merchants.

Another example of this interest in trade, rather than mere tribute, comes from an inscription of Sargon II which glorifies the Assyrian ruler for being the first to succeed in forcing Egypt to open trade relations and to abandon its traditional isolation (Oppenheim 1964, 93).

Hence, we see that both Diakonoff and Oppenheim have grasped aspects of the objective of Assyrian foreign policy, which was to impose control over external trading partners in order to force them to re-orientate their economic activity and trade to Assyria rather than to competing centres.

Hence the expansion of the North Syrian-Urartian alliance during the 9th and early 8th centuries to control access to both the eastern and western trade routes would have severely undermined the capacity of the Assyrian economy to maintain its intensive agriculture and craft production that had been developed on the basis of a previously dominant position in Near Eastern trade. The state of economic disintegration that had occurred in Assyria by this period is indicated by the difficulties that the Assyrian rulers had in controlling their nearest vassals, east of the Euphrates (Hallo, 1960), whilst at the same time, maintaining trade to the south and east. It also seems clear that economic disintegration led to internal social disruption. Winter cites as an example of Assyrian isolation at this period the loan of one mina of silver at the phenomenal interest of 400% (1973, 123). As she says, this implies severe reduction of the supply of metals (in particular silver) into Assur at this time. It is only in such a context of internal disruption corresponding to increasing failure to maintain control over external trading partners and vassals that the conditions of the usurption of Tiglath Pileser III and the economic and military resurgence of Assyria in the late 8th century can best be understood.

The primary focus of Assyrian resurgence was therefore understandably against the North Syrian-Urartian alliance in the north and west, subsequent to Tiglath Pileser's pacification of territories to the south and east. In a series of campaigns, Tiglath Pileser defeated Sarduri of



Urartu and of his coalition in 743 BC, and he incorporated the Aramaean kingdoms of North Syria into the Assyrian provinces west of the Euphrates. His treatment of these states clearly shows the threat that the North Syrian-Urartian alliance had been to Assyria (Winter 1973, 126ff). As a matter of strategic policy, Tiglath Pileser was determined to completely re-organise the structure of these kingdoms so as to incorporate them into the Assyrian empire and prevent such a coalition occurring again. This involved the destruction and repopulation of cities (cf. Annalistic Records, 103-133 in Pritchard 1955) and the movement of populations to other provinces, and consequently the reorganisation of the north Syrian economy into a more tightly controlled dependency of Assyria. It is perhaps significant that Carchemish was the only kingdom left with a certain degree of autonomy (Winter 1973, 135) primarily because it gave tribute immediately after the defeat of Sarduri (as did Hiram of Tyre) and also because of its strategic importance for organising Assyrian access to the Anatolian metal trade. However, it is clear that Assyria was constantly aware of the threat of a resurgence of power in North Syria, for example in 717 BC Sargon moved against Carchemish when its ruler had made alliances with Anatolian kingdoms.

'Evidently it was not clear for some time whether Assyria or the Phrygian/Urartian opposition was going to emerge more powerful, and the northwestern states of North Syria as well as the states of the Taurus were therefore resisting Assyrian domination as long as possible. By his 14th year, however, Sargon had succeeded in establishing his rule in all of the troublesome regions, and it was apparent that no other power could challenge the hegemony of Assyria.'

(Winter 1973, 143)

Therefore an obvious effect of the Assyrian re-organisation of the western trade routes was the weakening of Phrygia (which fell to the Cimmerians in 698 BC), and the cutting off of the trade routes to the Greeks established on the Levantine and Cilician coast, as well as to the Ionian and Black Sea settlements (cf. Barnett 1956b; Birmingham 1961).

Assyria does not appear to have extended control over western Anatolia, nor to have taken over the commercial ties established with the Greeks in the Eastern Mediterranean. Hence, by the early 7th century, the Ionian and Aegean Greeks faced a massive shift of political and economic power in the Near East which effectively left them isolated and unable to re-establish contact with the now dominant Assyrians, who did not at first appear to be interested in trade with the Aegean.

Considering the evidence available to suggest that Greek trade in Anatolia and the Near East was, as before, one of dependence on utilitarian commodities (iron, timber, cloth, metals) (eg. Riis 1970), the forced change of circumstances must have represented a major crisis for those Greek city states most involved in Near Eastern trade. (This will be discussed more fully below.) Winter significantly suggests that it is precisely in the early 7th century, when Sennacherib destroyed Tarsus in Cilicia, in order to regain control of the Cilician trade routes, and Al Mina was abandoned, '... that the Greeks (cut off from their source of iron, one would suggest) begin to establish contact with the Halstatt mining complexes of the upper Rhine/Rhone/Danube' (1973, 422).

It can be argued that the Assyrian policy in North Syria resulted in the considerable revival of the overland route to the independent Phoenician cities. Whilst Israel and Judah were incorporated as vassals, there is evidence to suggest that the Assyrians, whilst attempting to control and redirect their trade to some degree, left the Phoenician cities virtually autonomous.\*

Harden regards the late 8th century bilingual inscriptions from KARA-TEPE in Cilicia (Phoenician and Hittite) as significant: they '... are no proof of a colony, though they presumably indicate the presence

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\* Metenna, who succeeded Hiram II, probably 'secured his throne by pledging loyalty to Tiglath-Pileser' (Cogan 1973). Tyre's independence however soon led to revolt, which was put down by the Assyrians with a demand for 150 gold talents. This, in turn, brought about another uprising at the death of Tiglath-Pileser III in 727 (Cogan 1973).



of groups of Phoenician traders or businessmen' (1971, 54). Balmuth (1971) has noted the similarity of some letters of the KARA-TEPE inscriptions with the ZINJIRLI silver ingots.

A certain degree of Assyrian intervention in trade in the Phoenician cities is indicated by two letters from the Northwest Palace at Nimrud, dated to the reign of Tiglath Pilaser III.

'The letters refer to the murder of the king's tax collector in Tyre and the imprisonment of an official in Sidon as reactions to Assyria's policy of diverting timber from old outlets in Egypt and Palestine to Assyria.'

(Winter 1973, 438)

By the 8th century, the value of all goods was probably measured in terms of a silver standard in Assyria and by the 7th century, silver designated for currency was distinguished from that which could be used for manufacture (Balmuth 1971, 1975). It can therefore be suggested that tax would have been levied in silver or commodities which could easily be exchanged against it: there would therefore have been different demands on Phoenician cities to satisfy the tax, tribute and trade demands of the Assyrians. If the tribute lists (Pritchard 1955, 1969) are indicative of the value attached to different commodities, high value commodities in the 8th and 7th centuries would include gold, silver, 'copper' and bronze vessels, ivory and fine wooden products, and Phoenician craftsmen may have been resident in Nimrud (Culican 1961). It is unlikely that the Assyrians would have been interested in acquiring Phoenician bulk commodities, such as plain cloth, which could more easily have been obtained from their own manufacturing centres or those of Babylonia.

The increased dependence on Phoenician enterprise to provide those commodities, valued intrinsically or for exchange by Assyria, would have been a consequence of the re-alignment of the main East-West trade routes following the campaigns of Tiglath Pileser III and Sargon II. In order to meet the increased demand for high value commodities by the Assyrians,

the Phoenician cities were forced to extend their exchange relations. Maritime expeditions to India were no longer feasible since trade with the East, via the Persian Gulf, had been re-established by Babylon. (Oppenheim 1964, 94: refers to the Indian cotton plants in Sennacherib's garden). Expansion beyond the regular trading network within the Eastern Mediterranean was the only means by which the Phoenician cities could maintain themselves whilst satisfying the ever increasing Assyrian demands. Essentially, the Assyrians' demands had forced the Phoenician cities to become sources of raw materials to provide production centres, like the Assyrian, and in order to obtain these raw materials the Phoenician cities had to enlarge their trading sphere. It is significant that in order to function as procurers of raw materials the Phoenicians had to act as suppliers of manufactured goods: either their own, or those that could be more easily procured in the Near East or en route to the new sources. The scale of production of commodities for exchange had to be increased or new centres of production established.

A new phase of Assyrian relations with the west marked the reigns of Sennacherib (704-681), Esarhaddon (680-669) and Ashurbanipal (688-633). Sennacherib was more involved with Babylonia and Elam than with the west (Brinkman 1973). But the pattern of increasing competition between Phoenician cities which emerged following their attempts to subvert Assyrian dominance in the west, when they used their political freedom to establish alliances with external trading partners, inevitably resulted in rebellions against the Assyrians which were put down with increasingly severe terms imposed by the Assyrian rulers. But, according to Revere (1957, 59), Tyre's 'relationship with Assyria was for the most part one of cooperation'.

Early in Sennacherib's reign, Tyre and Sidon were both ruled by Luli (Eloulaios), who was forced to flee from Tyre by Sennacherib, who installed Ittobaal (Ethba'al) as king of Sidon.\*

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\* Barnett has identified the scenes on certain reliefs of Sennacherib's as depicting Luli's flight, including representations of the city of Tyre and some Phoenician merchant ships (eg. Barnett 1959). W.S. Smith points out that the intention of the portrayals and their display at eye-level in reception rooms of the palace in particular of scenes of foreign conquests were to 'impress the invincible power of Assyria upon foreign envoys' (1965, 57-8). This should be a warning against some of the too literal interpretations of these scenes and their implications by Hawkes 1969; Maluquer 1970c; Blázquez 1975; and others.



Ship-building by Phoenician, Syrian and Cypriot ship-builders using imported timber is depicted on one of Sennacherib's inscriptions (Brown 1969, 193). Severe terms were imposed on the Phoenician cities and high tribute payments were to be made 'annually without interruption' (Pritchard 1955). The independence of the kingdom of Israel was destroyed and she was similarly forced to make high tribute payments. Consequently, in an attempt to maintain the necessary external trading relations to meet Assyrian tribute and trade exactions, Sidon formed an alliance with an important Taurus kingdom. This political alliance led to the destruction of Sidon.

The confederation of the '22 kings of Hatti' formed and led by Baal of Tyre (which included Judah, and 'all the western countries, from Gaza in the south to Arvad in the north, and ten of the city-kings of Cyprus' (Katzenstein 1973, 263) was an attempt to re-assert Tyrian dominance among the Phoenician cities as well as an attempt - with the aid of Egypt - to subvert Assyrian hegemony over the Eastern Mediterranean trade. But the alliance was not successful and in addition to providing corvée labour for the building of the Assyrian port of Kar-Esarhaddon (in place of Sidon), increased demands were made on the Phoenician cities, as seen in the treaty imposed on Baal by Esarhaddon, following his defeat of Egypt in 671 (Katzenstein 1973, 263ff). The treaty deals with the obligations of Baal to the Assyrians, and the role of the Assyrian governor at Tyre is defined. The autonomy of Tyre, and the rule of the king and 'the ancients of thy land' is not undermined. Tyrian traders had to obtain permission prior to visiting ports in territories under Assyrian control, but the ships of the king and those of 'the people of the land' were still free to operate beyond the Assyrian sphere: and no doubt the autonomy of the city depended on their success in establishing and maintaining their maritime power. As Winter notes:

'... the Phoenicians by virtue of their foreign sea trade were able to provide goods and services (like supplies of silver from the Rio Tinto mines in southern Spain) which the Assyrians could not otherwise obtain, as they were neither equipped nor ready to assume the risks of taking on the maritime activities themselves.'

(1976, 20)

In fact, the Phoenician cities were able to maintain this role of supplier of raw materials to the Assyrians due to their western maritime expansion. Thus, when the Assyrian empire fell in 612, the organisation of Phoenicia was the same as it had been under Esarhaddon and Assurbanipal: ie. there were the 3 Assyrian provinces of Simyra (in the north), Sidon (Kar-Esarhaddon), and Tyre (Ushu) (in the south), in addition to the 3 autonomous city states of Aradus, Byblos and Tyre (eg. Moscati 1968, 43-5).

The fortunes of the Phoenician cities under Pharaoh Necho (609-605) and then under the Babylonian rulers and later the Persians do not concern us here. But it is worth noting the important role in both overland and maritime trade they maintained under the Egyptians, the Babylonians and Persians (eg. Rawlinson 1889, 162). Oppenheim refers to the continuing involvement of the Phoenician cities in international trade in the time of Nebuchadnezzar II (604-562) when the chief merchant was probably a Phoenician

'... which can most likely be taken as an indication that trade with Phoenicia was either in the hands of the natives of Tyre or controlled by them in some way. It combined with the delivery of typically Phoenician products with the procurement of essential raw materials from other countries, such as Egypt and certain places in Asia Minor, whereby the Phoenicians acted in their well-known function as intermediaries, as middlemen ...'  
(1969b, 253)

Thus, Nebuchadnezzar II's conquest of Tyre in 574

'did not at all shake the network of sea lanes and trade routes that held the world of our period together from the Pillars of Hercules (and beyond) to Uruk and, most probably, beyond.'  
(1969b, 254)

Similarly Rostovetzeff draws our attention to the similarity in the organisation and functioning of the caravan trade in Western Asia during the Neo-Assyrian, Babylonian and Persian empires:



'It was this caravan trade that brought riches and splendour to Aleppo and later to Damascus, the most flourishing cities of the Near East, and it was this caravan trade that put the Phoenician cities of Tyre, Byblos, and Aradus in a position which enabled them to acquire outstanding importance in the development of commerce.'

(1932, 16)

The Persian respect of the autonomy of the Phoenician cities and the co-operation of the Phoenicians with Persia against the Greeks in the 5th century may be seen as the resurgence of the traditional Phoenician Greek competition as seen in the Eastern Mediterranean in the late 9th and 8th centuries (eg. Barnett 1948; Winter 1973; and others) and probably the 7th century too; and as will be shown below for the Western Mediterranean in the late 8th and 7th centuries (eg. Rathje 1976).

#### 4 The structural preconditions and the process of Phoenician expansion

An important aspect of Phoenician westward expansion is the nature of the homeland population. We have seen that during both the Late Bronze Age and the Iron Age, there was no unified ethnic identity, other than that imposed by others, for the inhabitants of the Syro-Palestinian coast, viz. 'Canaanite' and 'Phoenician' were terms that were applied to the heterogeneous populations of the coastal cities by their contemporaries.\* The populations of these cities included residents from different Syro-Palestinian cities, as well as elements of other western Asiatic or Eastern Mediterranean centres. Ezekiel's lament for Tyre (XXVII, 8-24)

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\* The ancient Greeks regarded the inhabitants of the entire Cilician-Syrian-Palestinian coast as 'Phoenicians', eg. Homer (Finley 1970, 80) and Herodotus (Jeffery 1961, 11). Harden notes that 'The Phoenician homeland was a meeting-ground of people. The inhabitants of cities such as Tyre and Sidon must have been almost as great an amalgam of races and tongues as can now be seen in one of their descendants, Beirut.' (1971, 73)

mentions the diverse origins of merchants, elements of the army, and even the participation of the inhabitants of Sidon, Arvad and Byblos in Tyrian maritime ventures. 'Phoenician' therefore refers to a category of people involved in certain recognisable activities, rather than to a single ethnic group, as for example in the Homeric poems, when traders are 'Phoenicians' (cf. Finley 1954). The assimilation of elements of Aramaean and Israelite populations seems to have occurred in this way (cf. Albright 1961). That is, by taking on Phoenician language and ideology, people of different origins could take part in characteristic Phoenician activities and thereby become identified as Phoenicians. In fact, Phoenicians - or the inhabitants of Phoenician cities - appear to have continued to regard themselves as 'men of Tyre', 'men of Byblos' etc.

Similarly, the Phoenician foundations in the west would have had two major components: the Eastern Phoenician traders and settlers; and the elements of indigenous populations that achieved 'Phoenician' identity by taking on Phoenician activities. Those elements of the indigenous population that attached themselves to the Phoenicians were, in some cases, already involved in the sort of commercial or manufacturing activities that the newcomers promoted whilst creating new forms of wealth. The degree to which indigenous populations were involved in the formation of 'Western Phoenicians' is difficult to assess, but the density of Phoenician sites in the West and the intensity of their activities there are unlikely to have been accomplished solely by the population of the Phoenician homeland and would at least have involved participation of peoples the Eastern Phoenicians contacted in the Central Mediterranean and North Africa. (This is better known in the case of later Carthaginian 'expansion' and 'conquest' (cf. Warmington 1964, Ch.III; Picard and Picard 1968, 65ff) that involved the incorporation of entire Western Mediterranean indigenous populations.) But, note too that the Magonids were required to pay tribute to the local Libyan populations (Picard and Picard 1968, 65). The incorporation of elements of local populations, as known in the East, is described for Carthage by Whittaker (1974).



The organisation of the initial trading ventures was in the hands of the mercantile 'companies' or 'firms' known to have been operating in Canaanite towns, like UGARIT, and even mentioned in the account of Wen Amon's expedition in the 11th century (Breasted 1905, 514-5). Maisler (1946) cites the reference to the 50 ships at Sidon which stood in 'Hbr' with 'Wrktr', who was 'probably the head of a great trading company', as evidence for the early date of these commercial firms, whose function was to provide the capital, to build the ships and subsequently sponsor and protect the fleets. Thus, traders owned their own ships, paid for their own workforce, and organised the voyages. We know too that these traders were not under the direct control of the king, but operated independently. The independence of these traders' activities is noted from Wen Amon's account, and from the 7th century treaty between Esarhaddon and Baal, which deals with the rights of the 'ships of the people of Tyre' as well as to those of its king (eg. Katzenstein 1973, 267ff). The wealth of the cities would therefore have depended on the success of these traders: the critical nature of the maritime trade for the Phoenician city's economy has been emphasised above. But, the political status of the traders is also recognised in the 14th century records (from El Amarna and Ugarit), which refer to the 'council of elders' and the 'men of the city' as the king's advisers. The Egyptian use of the term 'Kyn'nw' in the 15th century for the 'special class of people in Syria' which Maisler (1946) believes to be the earlier representatives of the merchant elite of the Phoenician city is another indication of the political rank of the traders which we know to be true of the 8th century, when Tyre is described as: '... the bestower of crowns, whose merchants were princes, whose traders were honored of the earth.' (Isaiah XXIII, 8). In the period dealt with here, the councils always acted as advisors to the king; only under Persian rule were they to assume full authority with the end of monarchic rule (Harden 1971, 71-2).

The organisation of 'firms' in Assur, with their representatives residing in Anatolia, at KANESH (Kültepe)\* and other colonies, has been

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\* Riis (1970, 133) makes a significant observation, ie. that the only evidence for their presence is in records found on the sites, and that no material indications which would be generally regarded as evidence for the presence of foreign traders have been found.

studied from Old Assyrian texts found there by Larsen (1967 and 1974). The 'firms' were 'kinship-based groups' and Larsen (1974, 469) proposes that 'the predominance of the family may in fact be a feature which is closely linked with the recurrent pattern of city-states and commercial colonies and long-distance trade.' This type of kin-based organisation can be proposed for Phoenician traders and other occupational specialists too. In the Old Testament, we have references to Phoenician 'household' organisations from I Kings V, 11, when reference is made to the provision of foodstuffs by Solomon for the 'household' of Hiram I. The king's household would have been the largest of many occupational groups organised on a kinship basis in the Phoenician cities. Harden (1971, 135) describes the textile industry in Phoenicia: 'Mostly, the spinning and weaving will have been a home industry, not openly commercialized, though some householders must have used slaves to do it on an organized scale.' And Moscati notes that the organisation of the textile industry at Carthage was also originally on 'family lines' (1968, 223). We note too that the means by which these 'households' could be extended was by the incorporation of slave or other dependent labour, eg. by intermarriage with the Danites (cf. Albright 1961). In I Kings VII, 14, there is a reference to a Tyrian bronzeworker involved in the construction of Solomon's temple: he too operated within a kin-based groups: '... his father was a man of Tyre, a worker in bronze...' and his mother was 'of the tribe of Naph'tali'.

Gsell (1929, 109) described the organisation of trade and industrial activities in Carthage:

'C'étaient en général, semble-t-il, d'assez petites gens, des intermédiaires pour la vente des produits qui affluaient dans la ville. D'autres faisaient le commerce d'exportation et d'importation: propriétaires ou gérants de maisons de commission, soit à Carthage, soit dans les colonies ou à l'étranger: patrons, affréteurs de navires; organisateurs de caravanes. Au-dessus d'eux, des personnages appartenant à l'aristocratie étaient les vrais maîtres de tout le trafic. Comme à Tyr, "dont les marchands étaient des princes, et les négociants des grands de la terre" ceux qui, à Carthage, dirigeaient l'Etat ne négligeaient pas de faire des affaires pour leur propre compte.'



The leadership of the actual trading expeditions was in the hands of specialist traders of considerable repute. The status of Hanno, and Hamilcar illustrate the prestige of these expedition leaders who, like their counterparts in overland caravan trade, would have controlled the organisation of men and ships, known the routes and destinations and prescribed the nature and extent of the exchange transactions. There were also exceptional voyages such as those undertaken at the instigation of Pharaoh Necho, including the circumnavigation of Africa; and the voyages of Hamilcar and Hanno, which were examples of exploratory expeditions undertaken from Carthage.\*

It is clear, therefore, from both the contents of written documents and from the political situation described above that the Phoenicians were generally regarded by their contemporaries as specialist traders (eg. the association of the Hebrew word 'knn' with 'merchant' (Astour 1965) and the Hittite and Greek words for Phoenicians taken from one of their manufactures, the purple-red dye). The dating of the Homeric Phoenicians to the 8th century has been convincingly argued by Lorimer (1950), Finley (eg. 1972), Coldstream (1968) and Muhly (1970). In the *Odyssey* (eg. II, 2, 244-5) they are characterised as traders and navigators: 'famed for ships, greedy men' who supplied the Greeks with fine metal work, cloth, jewellery and slaves (Finley 1972, 80). The references to their 'pirate-like behaviour', eg. Eumaeus is said to have been kidnapped by Phoenician traders and sold into slavery (*Odyssey* XV, 416ff) is seldom over-emphasised. Unfortunately Mossé regards this incident as an illustration of the crucial aspect of Phoenician activities and draws the specious conclusion that 'tel devait être alors le "commerce" phénicien, razzia de pirates plus que système d'échanges rentablement organisé'. (1970, 18), thereby dismissing the significance of all Phoenician ventures in the Eastern and Western Mediterranean.

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\* Accounts of these are found in the Periplous of Hanno and in Avienus' Ora Maritima, lines 114-6. They are discussed in Harden (1948), Carpenter (1966, 81ff and 212) and Picard and Picard (1968, 86ff).

The reference in the *Odyssey* to the sojourn of the 'Sidonians' of one year illustrates - although possibly exaggerates - the nature of Phoenician transactions within the Eastern Mediterranean, which were to be carried out in the West too. That is, even within the Aegean they can be seen to have acted as collectors and carriers of commodities over short distances. The traders' interest was to exchange one commodity for another to be exchanged elsewhere for yet another in order to make a profit. Since trade must logically take place to the mutual benefit of all partners, we can assume that the Phoenician contribution of skills in transport technology served to link up separate trading spheres in which differences in exchange rates could be taken advantage of. For example, Riis (1970, 164) notes that Greek trade with Egypt passed through Phoenician hands. The Phoenician traders linked up specialist production centres, often involved in the manufacture of luxury items, and in so doing they effectively linked up distinct political entities. The Phoenicians are seen to have exploited the absence of organised exchange relations between different spheres in order to establish a rate of exchange between commodities which was to their advantage. By monopolising the source of production of specialised commodities and controlling their distribution by dominating maritime transport, the Phoenicians had effectively extended the range of manufacturing processes under their command, without having to bear the costs of production. Phoenician traders were then able to find or create demands for the specialised commodities (whose high costs would have prohibited their local production), to which they had sole access and were in a position to supply at low transport costs. And since many of these luxury commodities - or the raw materials needed for their production - were available within easy reach of the Phoenician cities, eg. in Egypt or Cilicia, they could be obtained in exchange for high bulk, low cost, commodities such as timber or dyed cloth. At a later stage of the development of this regional trade network, the Phoenicians became involved in the production of some of these luxury items, either by the settling of Phoenician craftsmen in the original production centres, or by the establishment of new centres of production in their own cities. The former would signify Phoenician commitment to the particular sphere of exchange, its maintenance and its expansion at the production level. An example of this is the Phoenician involvement



in faience production in Egypt (Rathje 1976). Rathje (1976, 98) cites Edgar's recognition of Phoenician imitations of Egyptian faience being produced at the latest by the 8th century in the Egyptian town of Pi-em-ro, which later became Naucratis.

There are many examples of the establishment of new production centres in Phoenicia for luxury items, such as faience, and frit and glass objects and vessels, scarabs, alabaster and quartzite containers - often with Egyptianising 'garbled' hieroglyphic signs - and fine metal-work, including the famous jewellery.\* Through the extensive use of overland caravan routes as well as maritime routes by Phoenician traders, and their partners, these products reached Urartian centres such as KARMIR BLUR (Barnett and Watson 1952), and Mesopotamian centres\*\* in the East, Central Italy and the Euboean colonies in the Central Mediterranean (eg. Ridgway 1973 and 1974), and indigenous centres in the 'Far West' (see below, Part II).

The finds of Phoenician ivories in some quantity in Crete and Samos are attributed by Barnett (1948) to the settlement of Phoenician craftsmen at the famous shrines of the Idaean Cave and the Heraeum: 'The settlers established a taste for their work, perhaps married locally and taught their trade to Greek apprentices.' (p.6). Dunbabin (1957, 41) suggests there were similar establishments of Phoenician metal-workers on Crete. Similar settlements of 'foreign artisans' are envisaged in Etruria. Winter (1973, 373) and Culican (1961, 47) consider the possibility of some artisans established in Nimrud too.

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\* The problem of the centres of production of Phoenician jewellery has been admirably tackled by Culican in many publications. But it remains difficult to distinguish between Eastern and Western (presumably) Carthaginian, centres. (See Culican 1958, 1962, 1968, 1970a and 1973a ; Stern 1976; Higgins 1969).

\*\* A series of finds in different materials suggest that even if Phoenician craftsmen were not resident in Assyria, their products were either imported there, eg. metal bowls found at NIMRUD (Culican 1968b believes they may be Phoenician products), red slip tripods and a pottery bowl imitating a western bronze form in deposits of the period of Sargon II at NIMRUD (J. Oates 1959; Culican 1970b).

There is, however, no need to envisage the presence of craftsmen in the many centres where the ivories are found, since the role of the merchants and representatives of the king in the distribution of the ivories should not be underemphasised.

The presence of Phoenician glassworkers in Mesopotamia is suggested by von Saldern (1970, 211) on the basis of the Egypto-Phoenician influences on motifs of Assyrian glasswork of the 7th and 6th centuries.

There is evidence to illustrate both types of Phoenician intervention in production and their role in distribution from Rhodes. Coldstream has described the different phases of unguent container production on Rhodes (Coldstream 1969), but evidence for the beginning of the Eastern connections come from cemeteries on Cos. Middle Geometric wares (c.850-750) are found with imported Phoenician unguent vessels, with characteristic neck-ridges and black-on-red decoration. These, says Coldstream, 'represent the commercial enterprise of the Phoenicians, then just beginning to penetrate Aegean waters', and local - hellenised - imitations were subsequently produced in the Dodecanese (Coldstream 1969). In the 2nd half of the 8th century, graves in the cemeteries of IALYSOS, CAMIROS and EXOCHI on Rhodes contained a number of Oriental type unguent containers, viz. the mushroom-topped flask with the 'baggy body'; the characteristic black-on-red neck-ridged flasks; the black-on-red oinoche with globular body and long neck; the flasks with faces modelled on the neck; and the ring footed flask with globular body, short neck and circle and wavy line decoration, which is the characteristic 'Rhodian' aryballos. Some of these were imports; others, clearly local imitations, were uninfluenced by the indigenous Late Geometric style of the larger, closed shapes and the open vessels. Coldstream proposes that these containers were made by Phoenicians resident on Rhodes and involved in unguent production and trade.

'Prior to their arrival, the island seems to have played only a passive part in commercial exchange, since no Rhodian object earlier than the late 8th century has been found abroad. But, from c.725 onwards Rhodes suddenly begins to take the initiative; a most striking symptoms is the export of aryballoi



like Pl. II h [the 'Rhodian' aryballos], whose oriental character and wide distribution (but always in a westerly direction) argue strongly for the commercial energy of the resident Phoenicians.'

(1969, 4)

To support his argument for the settlement of Phoenician 'metoikoi' on Rhodes, Coldstream cites the 'Egyptianising objects in faience or glazed frit, which have been found in Rhodian graves and sanctuaries from the late 8th century until well into the 6th'. Furthermore, one of the 'glazed clay' flasks common to Rhodes was associated in IALYSOS Grave 42 with a group of 'un-Hellenic' pots and figurines. And some burials of children from IALYSOS and CAMIROS were inhumations in 'Phoenician-type coarse amphorae' as found in 'the Phoenician colonial cemeteries of Carthage, Motya and Kition'.

It is possible to interpret this evidence somewhat differently in the context of the Phoenician trading organisation described above: slow-pouring unguent containers - and in some cases unguents too - were introduced into the Dodecanese and Rhodes (also Syria, Cilicia, etc.) by the Phoenicians in the late 9th and early 8th centuries. On Cos, the local production was incorporated into general pottery manufacture, possibly also unguent production. But on Rhodes, the oriental types of containers were imitated as closely as technically possible in order to supply the Phoenician traders calling at Rhodes who would as readily use these 'Rhodian' aryballoi produced in large numbers on Rhodes than the perhaps more 'expensive' Phoenician or Cypriot equivalents. In fact, the westerly distribution of the aryballoi can only be explained by Phoenician involvement in their distribution, eg. finds from PITHEKUSAE. (Ridgway illustrates a North Syrian face aryballos and a 'Rhodian' aryballos, Fig.2a and b, Ridgway 1973; and cites another Rhodian find from CASALETTO DI CERI, near Cerveteri - Ridgway 1974.) The Rhodian production of Phoenician containers, for Phoenician merchants, was stimulated by the introduction of a new commodity into the Aegean, viz. faience. Its distribution in the East and West again denotes Phoenician carriers. Another example of Phoenician intervention in the distribution of Rhodian wares, as proposed by Coldstream (1969, note 38), are the Rhodian bird kotylae found in a late 8th century context at AL MINA.

To summarise, we can say that having introduced a new commodity - unguent containers - Phoenicians organised its production in a new centre within their trading sphere, thereby adding another exchange transaction to their chain of exchanges between the homeland and their ultimate destination, within the Aegean or further west. It is of course possible that Phoenician craftsmen were involved in the aryballos production on Rhodes but the degree of stylistic and especially technical variation from the Oriental prototypes and the organisation of Phoenician trade make this unlikely.

Phoenician commodity production was more or less limited to high value items, produced by means of a specialist technology involving high skill and scarce materials, viz. metal worked into ornately decorated containers, intricate and elaborate jewellery (best known from beyond the Phoenician homeland eg. Culican 1958, 1973a).

Wood was worked to produce fine toilet items or furniture, often with inlay (eg. Barnett 1956a and the tribute lists, in Pritchard 1955, 1969). Ivory was worked to produce the embellishments for furniture but also carvings and sculpted pieces (cf. Barnett 1939, 1948; Albright 1963, 136-7). Cloth\* and dyes were combined to produce the 'ornamented garments' much desired by Assyrians and frequently referred to in the tribute lists (eg. Oppenheim 1969b, Pritchard 1955). The fact that most of this production was for exchange and prescribed presentation meant that the

'manufacturers of the exquisite in many fields  
ranging from the metal work of Phoenicia herself,  
so celebrated by Homer, to the patterned cloth  
fabrics manufactured even in the outlying districts  
of Motya and Malta'

(Culican 1958, 90)

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\* It is quite possible that plain cloth was obtained through trade, and that it was dyed, embroidered and made into 'western' style garments in the Phoenician cities.



adapted their production to suit the tastes and demands of their customers in terms of what they produced and often the 'cultural' content of their production. For example, the furniture from which the ivories (like the 'Layard group') came was, according to Barnett (1948, 3)

'evidently an expensive fashion that prevailed in royal circles in the ninth-eighth centuries B.C. Very similar collections or individual pieces have been found in the Assyrian palaces of Assur and Khorsabad, the Aramaean palaces of Hadatu (Arslan Tash) and Sam'al (Zincirli) at Carchemish in North Syria and at Samaria in Palestine.'

This type of furniture was being produced on a considerable scale, was becoming repetitive in its execution, and was destined for elite consumption. In the case of ivory-carving, this trend in manufacture resulted in the 'unlovely symposium of Egyptian, Assyrian and even Hittite forms' (Culican 1958) which Albright described as 'bastard, since it disregarded all the precise standards which the Egyptian artists had laboriously built up...' (1942, 13), and which Barnett more aptly described as the 'characteristic features of Phoenician art: great technical accomplishment, but little conviction or real feeling for form' (1948, 3). However, Barnett (1957, 61) defends the way in which the Phoenician craftsmen incorporated elements of Egyptian iconography into their own art style and - more significantly - its symbolism. But as Aubet has shown, the production of the best Phoenician ivories of the 9th and 8th centuries was followed by a period in which ivory was engraved instead of carved and in which the themes portrayed were neither symbolic nor narrative, but represented purely ornamental combinations of traditional themes (cf. Freyer-Schauenburg 1966; Aubet 1971a). With particular reference to the Phoenician component of the Bernardini ivories of Praeneste, Aubet describes the degeneration of Phoenician ivory working as follows:

'La serie de cuencos metálicos y placas Bernardini constituyen, así, la fase intermedia o colonial entre la iconografía fenicia y la de Occidente o cartaginesa. El carácter simbólico y religioso, junto a la técnica, van decreciendo hasta llegar al ultimo grado de desarrollo, que forman los marfiles occidentales de Cartago, Carmona y Samos.'

(1971a, 196)

This degeneration in style and technique of ivory working, especially during the 7th and 6th centuries, is related to the increased production and to the intended use of ivories beyond the Western Asiatic and Egyptian sphere in which ivory carvings had served per se as symbols of political power (eg. Barnett 1956a) and by their content had served a religious or ritual function. But in different cultural contexts the ivories no longer had these functions and their lack of symbolic content did not detract from their use as high value items for exchange or - as is more likely - presentation to the indigenous persons of high political rank with whom the Phoenicians dealt beyond the Western Asiatic-Aegean trading sphere.

What is known about ivory production can be assumed, but not yet proven, for other specialised commodity manufactures in the Phoenician cities at the same time.

With regard to Phoenician metal-working, Culican supports the view first proposed by Prausnitz (1966) that metalwork was given in tribute by Syrians and Canaanites to Egypt during the 18th dynasty and cites a L.B.A. vase from a tomb at KHALDEH, which has some features clearly imitating metal forms, as supporting evidence for the continuity of Phoenician metalwork into the later B.A. and the I.A. (1968b, 291-2). But, very few Phoenician metal finds are known in the Near East; Culican believes that some bronze plates found at NIMRUD, which have Egyptian features on the handle attachments (cf. 1968b, 288 and Fig.3, after Layard) and resemble vessels used in Cyprus, may be Phoenician products. (J. Oates has proposed that a western bronze form was the prototype of a handled bowl in deposits of the period of Sargon II at NIMRUD (1959, 132, Pl. XXXVI, 29).) Similarly, the characteristic 'braseros' - bronze plates - found together with Phoenician material or Phoenician introduced material in Iberia could be the products of Phoenician workshops in the homeland or Cyprus: some similar vessels with hand-attachments have been found in a 7th century context in Egypt (1968b, 292). Culican adds that the Iberian finds could be Egyptian objects distributed by Phoenicians, but in view of the accompanying bronze forms distributed in the Far West, the former hypothesis is more plausible. In fact, the existence of



Phoenician and possible Cypro-Phoenician metal workshops is best known from finds in Italy and Iberia, ie. Etruscan tomb contents include Phoenician objects, and Etruscan metalwork is obviously influenced by Phoenician silver and gold products, found in the west (see Culican 1958, 1968b; Aubet 1971a, and others). But, Eastern Phoenician cemeteries, and even 'rich' Phoenician graves in the West - do not contain bronzes as grave goods; instead, fine red slip wares, often imitating bronze forms, accompany the dead (Saidah 1966; Chapman 1972; Culican 1973b).

In the early 1st millenium, Phoenician cities were involved, together with Syrian kingdoms, in supplying the enormous quantities of iron required by the Assyrian 'war machine' (cf. Oppenheim 1969b). They would also have acted as middlemen in the trade between Egypt and Assyria, dealing in commodities such as 'Egyptian blue' (or frit), woad, alum and fine linen: these items were generally noted as coming from 'the West' in Assyrian texts, without the specific area of origin (Oppenheim 1969b). Hence, the wines, honey, and spices were probably also in the hands of the Phoenician merchants. With the crushing of the North Syrian states, which had played a considerable role in supplying many raw materials directly or indirectly to Assyria, the Phoenicians gained from the 'progressive weakening and final elimination of wealthy business rivals ... their trade seemed to have reached great heights during the eighth century B.C.' (Barnett 1939, 15). But, this 'satisfaction was to be short lived', as Barnett observes, and the role played by the Phoenician cities in the regional economy of Western Asia was to change.

As discussed above, from the late 8th century, with their increasing incorporation into the Assyrian empire, the role of the Phoenician cities changes from suppliers of elite manufactured commodities serving to link up complex political and economic systems (Egyptian, Greek, Mesopotamian, etc) through judicious trading to having also to act as major suppliers of primary materials to their Assyrian and other partners in the Western Asiatic regional trading system (cf. Oppenheim 1967 and Rostovetzeff 1932, 16ff).

Hence, the expansion of the Phoenicians into what would be seen as relatively underdeveloped, economically and politically backward areas in the Western Mediterranean has to be viewed in the context of increased demand for raw materials to supply political superiors - such as Assyria - external trading partners (particularly with the disruption of the Anatolian metal trade), as well as Phoenician workshops.\* The Phoenician expansion into the Western Mediterranean is therefore primarily a drive in search of new sources of raw materials in previously unexploited areas at a time of increasing demand in the Near East contingent with a decline in supplies from traditional sources, such as Anatolia and Iran.\*\*

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\* It is insufficient to isolate factors like military pressure or the imposition of annual tribute as prime movers of the Phoenician expansion in the late 8th and 7th centuries (eg. Blanco 1960; Culican 1970c and Garbini 1966): it is the incorporation of the Phoenician cities in the regional system, coupled with their pre-adaptations to maritime voyaging and carrying that must be regarded as the essential structural conditions of their expansion.

\*\* Whittaker dismisses 'trade' as a function of Phoenician colonisation in the west by referring, somewhat surprisingly, to a Homeric reference to the activities of one particular 'Phoenician' merchant, the account of Colaïos' journey in Herodotus, and aspects of Wen Amon's trade with Byblos. He concludes that 'Trade empires, commercial monopolies and even regular trade routes implied by the term "commerce" are fantasies in the archaic period.' (1974, 77). Von Berchem, on the other hand (in the context of a study of Phoenician cults) considers Phoenician expansion to be essentially commercial, but he believes that Phoenician 'comptoirs' were established on indigenous sites and since they did not use or distribute the Greek pottery, 'le matériel de prédilection des archéologues', their establishments will not be located. Furthermore, he proposes:

'... les Phéniciens, fabriquaient et colportaient des objets de luxe, pièces d'orfèvrerie ou de verre, bijoux, étoffes, dont la nature ou le prix ont favorisé la destruction. Ni leur poterie, qui demeura grossière, ni leur architecture, où le bois semble avoir tenu une place importante, n'ont laissé dans le sol de vestiges immédiatement reconnaissables.' (1967, 75)

The archaeological evidence from the Central and Western Mediterranean and North Africa totally contradicts his apology for Phoenician ephemerality!



Silver and gold, and probably ivory, were among the resources the Phoenicians were likely to have sought in North Africa and the Western Mediterranean. Gsell (1929, IV, 74ff) thought that Carthaginians obtained ivory and gold from the interior: the voyage of Hanno in the 4th century was probably connected with an interest in direct access to West African gold. Balmuth (eg. 1975) notes that metals - in particular gold and silver - were used as a medium of exchange during the 2nd millenium in the Near East. Its use as currency, ie. when weight is determined by value, in the late 2nd millenium, is known from the account of Wen-Amon's expedition. But, by the 8th century she claims that ingots fulfilling the 'Aristotelian requirements for coinage by virtue of being metal, weighed and guaranteed' (1971, 7) are represented by the silver discs, inscribed with the name of Barrekub, found together with disc-ingots and 'Hacksilber' in the palace of Barrekub - a vassal of Tiglath Pileser in c.730 - at Zinjirli. (See also Balmuth 1967, for her original interpretation of this material.)

This implies that quantities of silver were increasingly required for use as a medium of exchange (possibly currency too). This created a new, hoardable form of wealth, which could have boosted the need for silver, which was also required in Western Asia for the manufacture of fine wares and jewellery. It can be envisaged that with an enormous increase in the supply of silver to the Assyrian cities by the Phoenicians during the 7th century, its controlled availability and hence value would ultimately be diminished by the enormous quantities in circulation and storage and the external source would eventually be cut off.

But, in the 7th century, the use of silver as a medium of exchange and standard of value is well attested for in Assyria. Parker (1963) refers to tablets dealing with legal and economic affairs of members of the temple personnel at Balawat:

'All these transactions concern silver, or the debt is stated in terms of silver. Sometimes the standard of silver is specified, eg. the royal standard, or the standard of the Istar temple at Arbela, or the tamqaru standard of the same temple.'

In order to develop this strategy of procuring raw materials, the Phoenicians had to use what was locally available (eg. timber and iron) together with highly developed craft skills to convert what was available within the more local trading network into low cost, low bulk, high value commodities. These 'exotic' commodities would be appreciated in the Western Mediterranean and could therefore be used to reorganise flows in primary products into the hands of the Phoenicians.

This has been shown for Etruria, where Rathje (1976) stresses the intermediary role of the Phoenicians (at first probably Eastern Phoenicians) in the distribution of Egyptian and other exotic goods in the 7th century:

'The finds from Etruria must be taken as showing a connection with the Phoenician world, as von Bissing pointed out many years ago. (The anthropomorphic faience perfume flasks) must be considered together with other imports such as scarabs, amulets, figurines of faience, silver ware, glass, ivories, tridacna squamosa shells and undecorated ostrich eggs.'

It must be emphasised that this sort of trading strategy in the west was initially dependent on the existence of a number of highly organised centres of cheap production of large quantities of exotic items in the Eastern Mediterranean that could then be carried into the west and distributed there at a value well above the costs of production and general evaluation in the East. The success of Phoenician trade in the west was based therefore on their obtaining a cargo of 'luxuries' from centres in the East that could be converted through trade into valuable primary products, eg. the Cypriot Phoenician red slip and bronze vessels found in Iberia, the Egyptian or Egyptianising alabaster vessels and seals. The Cilician lyre player seals found in such quantity at PITHECUSAE associated with Egyptian scarabs there and at CUMAE - but at no other Western Greek site (Buchner 1964) - all exemplify this type of distribution mechanism.



Considering the variation and amount of Phoenician material at PITHECUSAE it is no longer possible to deny the involvement of Phoenician traders in the trade with Central Italy organised there by the Euboeans. The very foundation of the Euboean trading post at a time when the Near Eastern trade was threatened (see below) appears to have involved the participation of Phoenicians. The LG I material from PITHECUSAE includes 7½% of what Ridgway describes as 'oriental pottery'; he also considers a burial of a baby in an amphora with both Greek and Aramaic inscriptions and a Semitic funerary symbol on the handle to be evidence for a Phoenician burial within a 'family group' (dated to 750-725) (Ridgway lecture, 1976). This will be discussed in Part I B, 2.

Hence Phoenician trade with Rhodes, Greece, Egypt, etc., to obtain large supplies of 'exotica' as initial preparation for a western trading venture helps to explain the often remarked upon mixture of goods from Eastern Mediterranean - but not Western Asiatic - centres that occurs on Phoenician sites in the west, including the anomolous Foundation Deposit at Carthage (eg. Culican 1961, 47ff; Coldstream 1968, 386-7; Picard and Picard 1968, 33-34; and many others), and the occurrence of Greek wares in Phoenician tombs, sometimes together with amulets and jewellery (largely Punic) on Malta. A 7th century Proto Corinthian cup was found at MTARFA (Rabat) (Zammit 1927, 1928; Trump 1972, 110); an 8th century Corinthian cup and a 7th century Rhodian bird bowl were found in a tomb of GHAJN QAJJET (Rabat) (associated with the type of Phoenician tripod and vase support found in Spain) (Baldachino 1952; Baldachino and Dunbabin 1953; Trump 1972, 51).

A second stage in Phoenician expansion would have involved ventures beyond the established trading partners - carrying commodities whose specialised production they had either initiated themselves or encouraged in other areas, eg. Rhodian aryballoi, etc. In the same way as there was an increasing incentive for Phoenicians to secure reliable supplies of 'exotica' by entering into the organisation of production themselves, so at the other end of the trading sphere, where such goods were being consumed, there would be an equal incentive to found trading stations for transport and storage facilities to secure reliable trade routes and

monopolise access to established trading partners. Thus, eventually, the establishment of regular trading posts beyond the original trading sphere would have become necessary. At this stage the transportation of commodities of greater bulk, but of similar value, can be envisaged, eg. oils and unguents, cloth etc. Once again there are indications for the specialised production of containers such as the ampullae found in the 'Far West' (Culican 1970b).

The function of the trading posts was to supply the founder city with the primary products it required. As political representatives of the founder city, it would have been the task of the trading establishment to create the secure conditions for maritime and inland trade by alliance with local inhabitants, as noted by Gsell for Carthage, and the very functioning of the city depended upon a:

'... politique commerciale, que l'on peut résumer ainsi: soit par la force, soit par des traités, soit par des fondations de colonies, ouvrir aux Carthaginois des marchés; en réserver l'exploitation dans les contrées d'où il était possible d'écarter toute concurrence; dans celles où ce monopole ne pouvait pas être établi, régler les transactions par des pactes stipulant des avantages réciproques; assurer contre les pirates la liberté de la navigation, l'existence des cités et des comptoirs maritimes.'

(Gsell 1929, IV, 113)

Essentially, the organisation of the trading posts replicated that of the homeland cities in terms of function. At first the trading post would have to rely on commodities being supplied by the founder city, or firms, for exchange purposes; which created a relationship of dependence to the advantage of the founder city. With the increasing growth of the homeland cities in bureaucratic and probably military spheres, in order to ensure the maintenance of autonomy, this political domination over the western establishments became transformed into a relationship of exploitation. By assuming productive functions - as did Carthage - this exploitation could be resisted by the trading posts, which by this stage would be well on the way to political autonomy too.



In addition to absorbing elements of the indigenous population, these developing trading colonies would have attracted the unsuccessful parties in internal strife in the mainland. This type of strife is known to have existed before the 'Assyrian pressure', to which so much is attributed, eg. the 14th century conflict known from EA 89 (discussed above); another in the early 9th century.

In a third phase of expansion, an originally dependent colony could create its own regional economy and become economically independent of Phoenicia, though maintaining the strong ideological links as its charter for existence. This may have involved flows of materials symbolising the mythical dependence. It should be noted that the foundation myth of Carthage (or Kition, according to Frézouls, Åkerström and Forrer) rationalises the independence of the city but underlines its original relationship with the founder city.\*

However, the establishment of independence of a Phoenician trading colony was probably a rarer phenomenon than in the Greek colonisation process. In the former, population had to be obtained locally, ie. drawn from the surrounding hinterland and turned into 'Phoenicians' rather than the core of the population being drawn from a mother city state, and - as frequently was the case - the indigenous population reduced to a dependent labour force of the Greek colony.

The independence of Phoenician trading colonies must also have depended on their capacity to turn themselves into manufacturing centres as well as suppliers of transport and storage facilities. By achieving this degree of autonomy the local colonists would no longer have been dependent on Phoenicia for supplies and trade goods as well as commodities for their own consumption. However, trade with the hinterland would have

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\* According to Katzenstein, all the Phoenician 'trading places overseas were founded by Tyrians, as we know from both biblical sources (Isa. 23:4) and classical tradition', founded in the name of Melqart, which created a religious link between founder and colonial city which was still acknowledged at the end of the 4th century and possibly even later (Katzenstein 1973, 91).

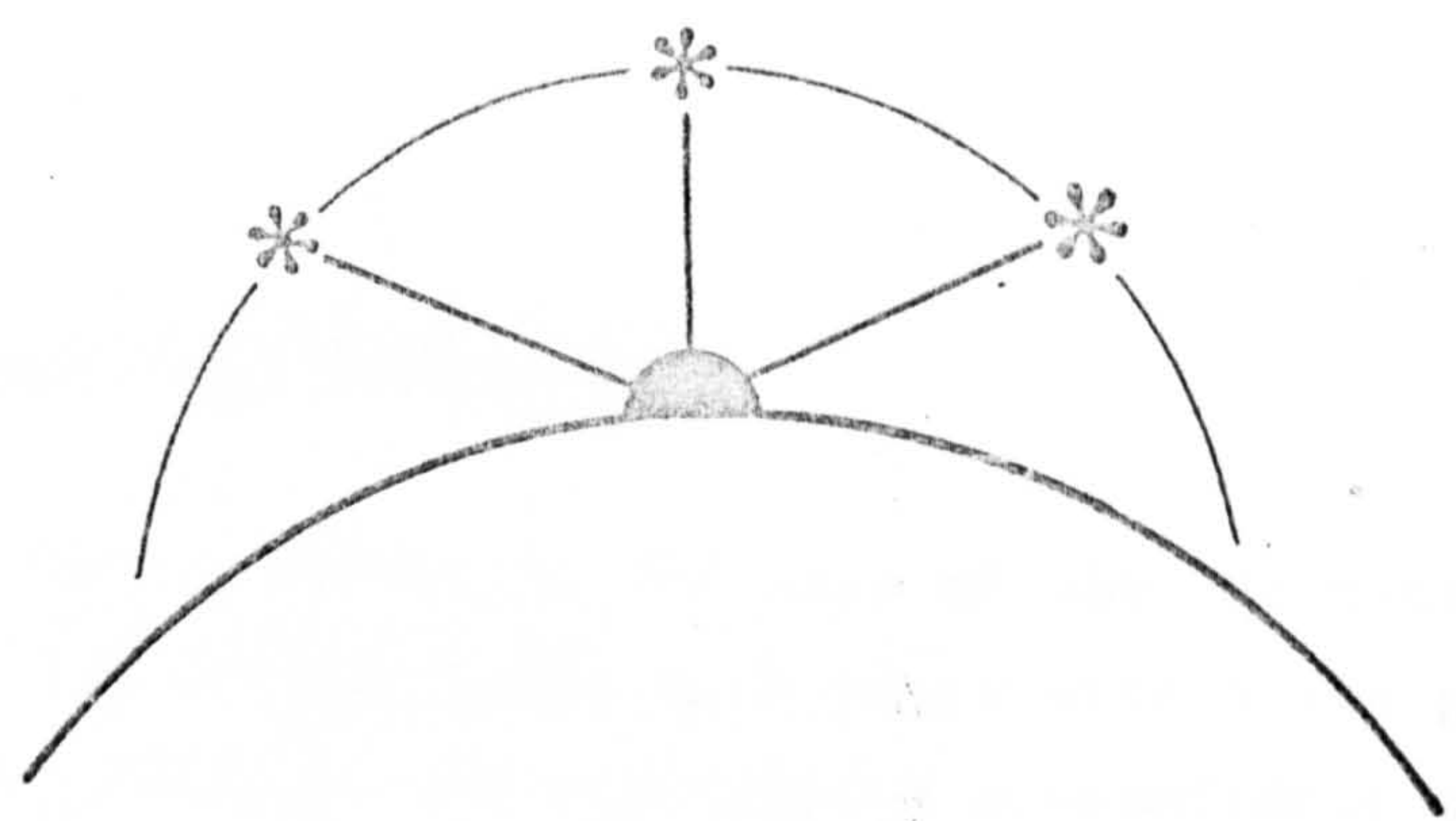
had to be particularly rich and advantageous to allow this stage to develop and we can envisage that in most cases the trading colonies stayed at stage 2. This would, to some degree, have depended on the location of the colony, ie. far enough away from the homeland to escape retaliation - as in the case of Kition - but also on the degree of economic and political development that had been achieved under domination by the homeland. With the increasing domination by Carthage of the Central and Western trading sphere, many colonies formerly bound politically and economically to the homeland cities would have transferred their allegiance and trading activities to become part of the Punic empire.

The commercialisation of the Phoenician city states can be seen to have involved a need for continual expansion. In the tracks of the primary expansion, a process of filling in occurred when the organisation and expansion of local manufacturing industries and the extraction of primary products took place. Population was brought in either as part of the trading community or as refugees from the mainland in times of internal strife (rather than external aggression). In time, the collective operation of the distant colonies transformed the Central and Western Mediterranean local economies by linking them, just as the Eastern Phoenician cities had produced the Eastern Mediterranean trading sphere. Thus formerly autonomous local economies were re-organised into a larger regional network, in which first Phoenicians and then Carthaginians arranged exchange relations and influenced commodity production and the utilisation of primary materials (eg. Culican 1958, Rathje 1976). This will be examined in detail with reference to Iberia in Part II.

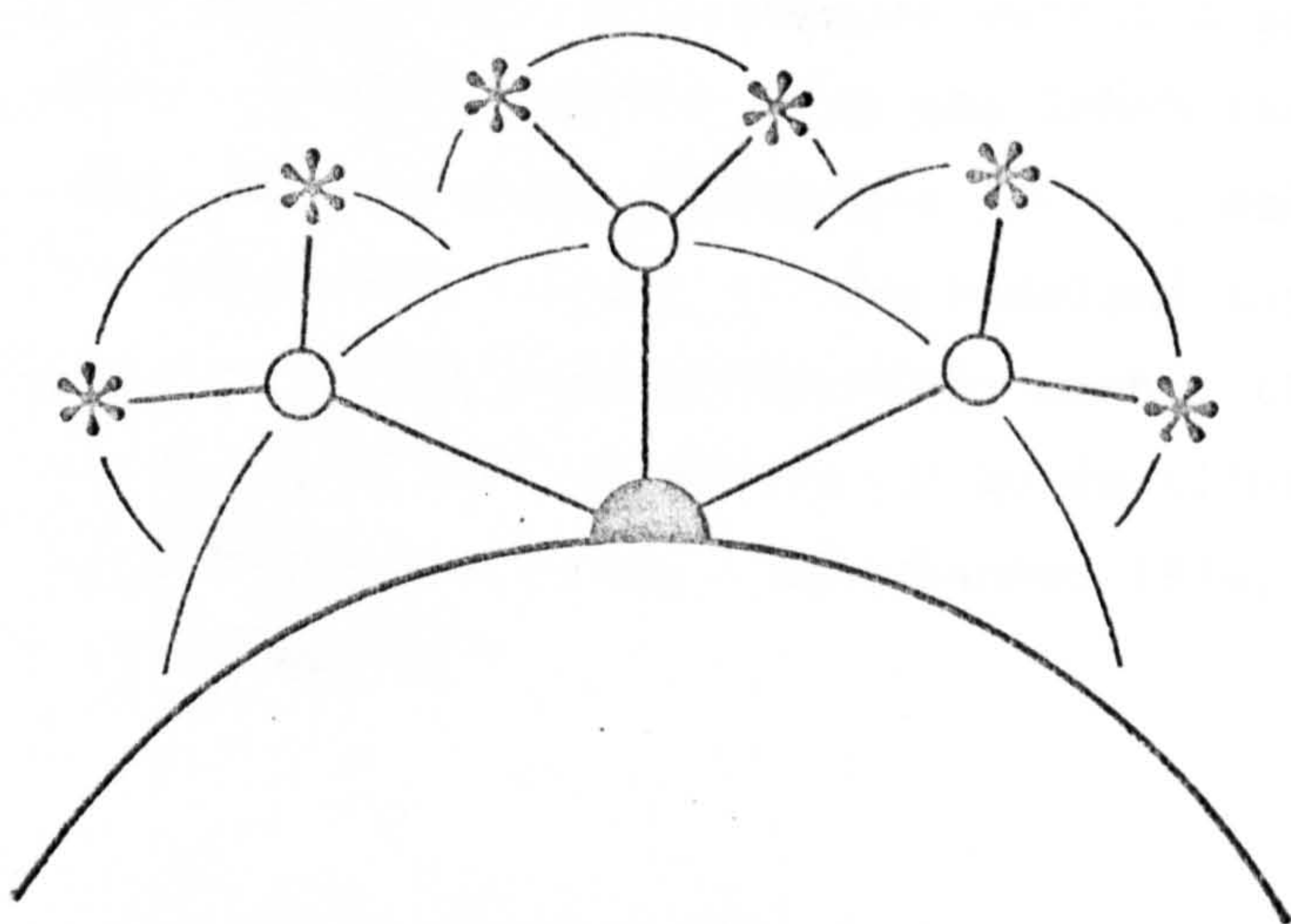
A model of the expansion of the Phoenician cities, and their trading spheres, is shown in *Figure 2*.



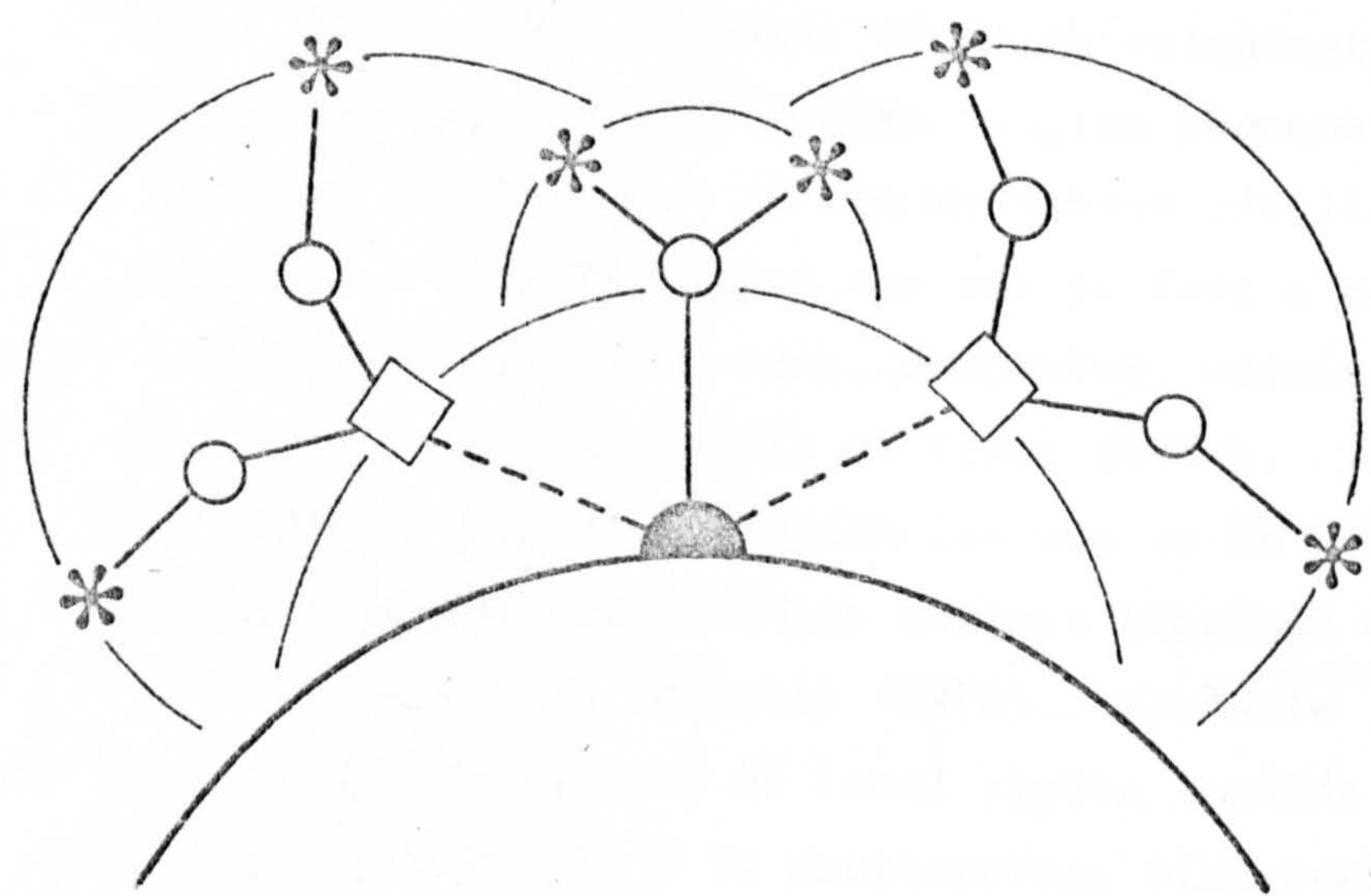
1st phase



2nd phase



3rd phase



- |   |                    |   |                   |
|---|--------------------|---|-------------------|
|  | Phoenician city    |  | dependence        |
|  | Trading post       |  | broken dependence |
|  | Independent colony |   |                   |
|  | Trading situation  |   |                   |

Figure 2: Model of Phoenician commercial expansion.

## B - Greek Expansion and Colonisation

As has been shown, above, in the case of the Phoenician cities, the establishment of trading posts took place within the perimeter of the existing trading sphere and represented a commitment to the maintenance of exchange relations with certain partners or within a particular area. It has also been shown that the trading post was inhabited by Phoenician merchants, later craftsmen too, and indigenous people; only in some cases can the influx of larger sectors of the homeland populations be expected. Since we are dealing with commercial, rather than territorial expansion, the trading posts were at first, on an institutional level, an extension of the Phoenician cities. (cf. Larsen 1974, concerning the Old Assyrian trading colonies.)

### 1 The Aegean-Near Eastern network: a new configuration

However, when we examine the processes of Greek colonisation we must recognise that we are dealing with a more complex phenomenon that began in the aftermath of the collapse of the Mycenaean civilisation. C. G. Thomas has argued that the Mycenaean age was in fact a period of political disunity and that there were many, competing, warring kingdoms whose 'cultural uniformity' was the result of trade (1970). The development of the elaborate palace bureaucracies has to be related to the contacts between Mycenaeans and the Near Eastern kingdoms during the 14th and 13th centuries, according to Muhly (1970). Vermeule (1960) has pointed out the increasing development of local styles towards the end of the 13th century, so that LH III C is contemporary with regional LH III B styles. It is therefore not surprising that following the general decline, only a few Mycenaean centres were able to maintain their populations, eg. Athens and Lefkandi (see Desborough 1965), whereas the population of other centres was involved in migration, ie. the Achaean populations that established new centres in Cyprus and Cilicia (Vermeule 1960) and were later involved in the 'haphazard flights' which led to the establishment of Greek settlements in the fertile coastal plains of Asia Minor (Finley 1970, 94). But political and economic changes had



occurred and the palace organisation, as we now know it from archaeological finds and the contents of the Linear B tablets, was defunct.

Finley's study of the Homeric institutions, in particular of the structure of Ithacan society described in the *Odyssey*, gives us insight into the structurally altered, illiterate society of Greece in the Dark Ages. The basic unit of society - the oikos - consisted of family, dependents and possessions; and the size of the oikoi of aristocrats could be built up by including retainers and large numbers of various categories of dependent labour. The base of the oikos was land and membership of the society depended on membership of an oikos. This made it possible for the nobles to build up large work-forces and create essentially self-sufficient oikoi. cf. Finley (1972, 66-8), and Austin and Vidal-Naquet (1972, 55):

'L'oikos est donc à la fois une unité de production et de consommation, et la majeure partie de ses nécessités matérielles sont satisfaites en dehors de tout contact avec le monde extérieur et de tout échange commercial.'

In the Homeric world of the 10th and 9th centuries, with the exception of 2 references to purchases of wine and jewellery, slaves were the only objects of purchase by Greeks, always bought from a non-Greek, usually a Phoenician. Cattle are frequently cited as a standard of exchange in both the *Iliad* and *Odyssey*, but it is not known what was given in exchange for the slaves. Finley (1954) envisages that these transactions were carried out by

'... bargaining until a mutually acceptable basis of exchange was reached, followed by a simultaneous exchange of the agreed upon objects and the departure of the foreigners'.

These rare occasions of purchase contrast with the general form of gift exchange by which alliances - marriage or political - were established and maintained by nobles and chieftains, and by which metals and perhaps craft products were distributed. (Also discussed by Roebuck 1959, 36-40.)

From c.1000 BC, iron technology was known in the Aegean. At first pins and weapons, ie. objects of display, were produced (Snodgrass 1967, 37). Coinciding with the generalised use of iron during the Protogeometric period (eg. Snodgrass 1965)\* there is evidence for a 'linking up' of the Greek lands, within the now wholly Greek Aegean: '... the picture of wide communications with Athens as a focal point, is in startling contrast to the conditions of the 11th century' (Desborough 1972, 345). Furthermore, certain discrete spheres of exchange begin to be recognisable on the basis of styles and distribution of Protogeometric pottery, for example Coldstream (1968, 337) remarks on the fact that 'four individual shapes, all foreign to Attic, have a wide distribution from Thessaly to Naxos in LPG contexts' and that the main centres of population in the late 10th century were located by the sea, viz. Iolcos, Skyros, Chalcis, Lefkandi and Naxos. The evidence for North Cycladic PG vases in Cyprus indicates the extension of the network; Cyprus, in turn, shows connections with the Dodecanese and Crète (where in addition to iron spears, bronze-rod-tripods and Cypriot duck vases, objects of ivory and faience have also been found) (Coldstream 1968, 337-40).

It is significant that both Desborough (1972, 346-9) and Coldstream (1968, 332-5) note that the dissemination of the 10th century Attic style of PG pottery represents the beginning of the re-assertion of some degree of cultural unity of the Greek lands of the Aegean through commercial relations. But the 9th and 8th centuries are characterised by the resurgence of individual pottery styles coinciding with - but not unrelated to - the development of the polis.

By the middle of the 9th century, Greek traders were establishing their quarters in local towns on the Cilician-Syro-Palestinian coast. The distribution of the earliest PG wares found on Near Eastern sites is shown in Figure 3 (taken from Riis 1970, Fig.46). The pendent semi-

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\* At Athens, there are some exceptional grave contents, with iron weapons and tools, as known for example from the 'Warrior Grave' of the KERAMEIKOS, and Grave XXVII of the AGORA cemeteries, dated to the transition from Late PG to EG (Blegen 1952.)



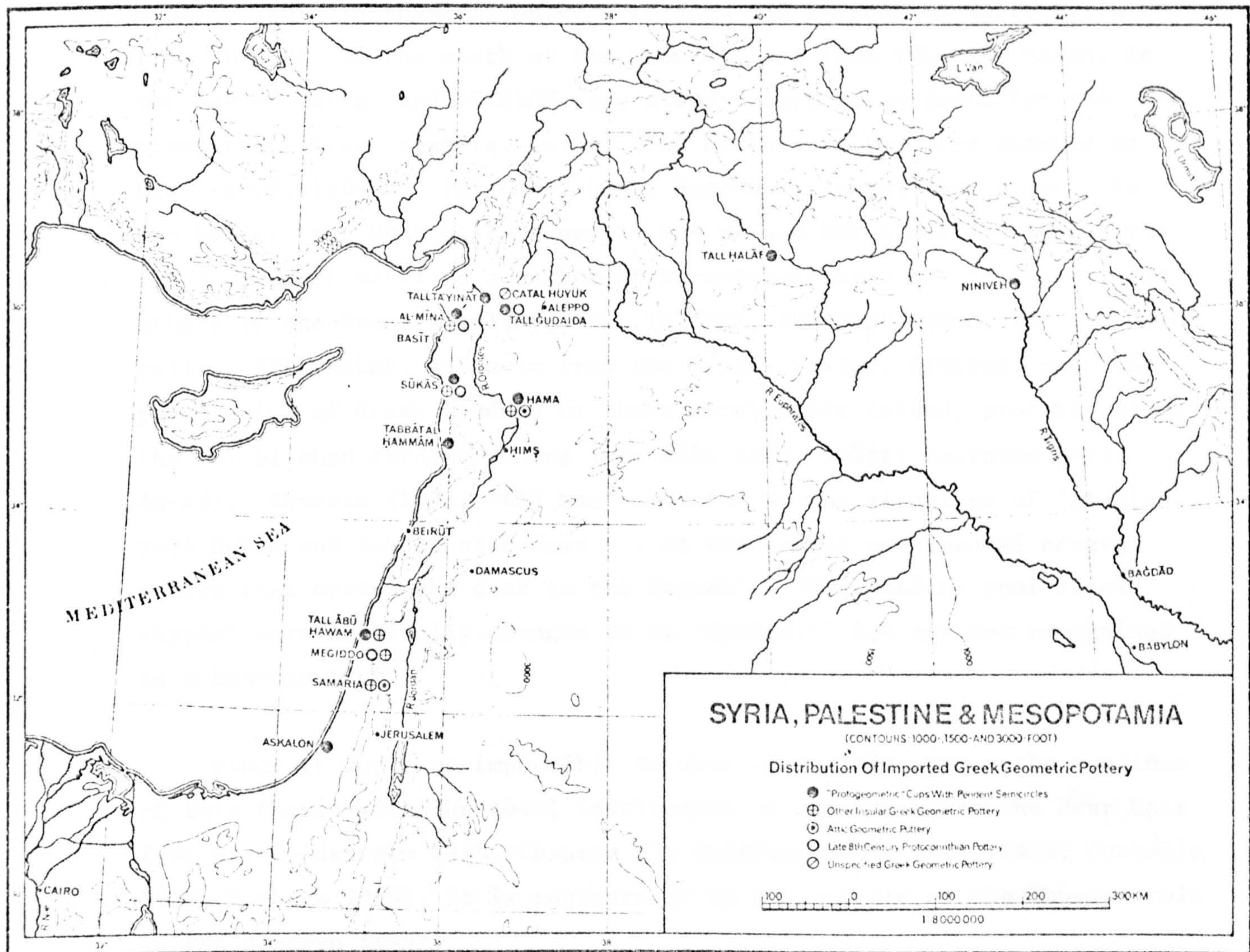


Figure 3: Distribution of Greek Geometric Pottery in the Near East.  
(Riis 1970, Fig. 46)



circle skyphoi are also found on Rhodes and Cyprus (Karageorghis and Kahil 1967; Catling 1973), which may have been a 'staging post' en route to and from AL MINA; and also in Cilicia, at TARSUS and MERSIN (Boardman 1965, 7). The finds of pendent semi-circle skyphoi at TELL SUKAS, near Jebbleh, TABBAT-AL-HAMMAN, between Tortosa and Tripoli in North Syria, from AL MINA, at the mouth of the Orontes, and from TELL ABU HAWAM, in the bay of Haifa, and ASKELON, are always taken as evidence for the presence of Greek traders, rather than of their wares, for example by Riis (1970, 158-60), following Cook, Boardman, Akurgal and others, in the belief that Near Eastern people had no use for Greek pots. But the finds of Greek wares on a number of Syro-Palestinian coastal sites, and others in the Orontes valley, TELL TAYINAT, JUDAIDAH, HAMA, and the Habur valley, TELL HALAF, and even from the Tigris valley, NINEVAH, mark the penetration of Greek traders or their merchandise inland, probably along the established caravan routes (see Riis 1970, 142ff; Boardman 1973, 44-48). Sanders (1971, 141) has commented on the situation of 'Al Mina, Tell Sukas and Tabbat al Hamman ... at the end of continental caravan routes that opened the door to the Aegean'. (The pendent semi-circle skyphoi were originally thought to be 'Cycladic' but are now recognised as a Euboean type.)

Since it would be impossible to deal adequately within the confines of this thesis with the total involvement of the Greeks in the Near East (see eg. Coldstream 1968, Chapter 13; Boardman 1957, 1965, 1973; Dunbabin 1957; Roebuck 1959), it is appropriate to concentrate on the Euboean role in the eastern trade.

The material from levels X - VI from AL MINA include considerable quantities of imported Greek pottery, almost exclusively of Euboean origin, viz. pendent semicircle skypoi, metope panel skyphoi and Euboean imitations of Proto-Corinthian kotylai. Certain skyphoi made in AL MINA in the late 8th century show a combination of these Euboean styles with certain Cypriot features: this local 'Greek' ware reached Cyprus, TARSUS and Byblos (Boardman 1973, 41). Other inhabitants of the site - which was established in the mid 9th century - used Cypriot and Phoenician pottery, especially the red slip and black-on-red wares which are



characteristic of the Phoenician dominated south coast of Cyprus (Du Plat Taylor 1959). As Boardman notes, '... the majority of the minor objects found are not Greek' which, together with the absence of any Greek features in the layout and architecture of the town, would suggest that 'the Greek community may therefore have been a minority' (Boardman 1973, 43) in this 'major port and entrepôt' (Boardman 1965, 12).

Riis, Boardman, Coldstream and others have referred to the propitious political conditions for the expansion of Greek trade in the Near East at this time. Essentially, we are dealing with the late 9th and early 8th centuries, the period of Urartian-North Syrian dominance of Western Asiatic inland trade (as described above). This new regional dominance would have required new outlets on the coast at strategic positions for the overland trade from the interior, and as outlets for North Syrian as well as Urartian manufacturing industries. W. S. Smith (1965, 56) following S. S. Smith (1942) notes that ALALAKH, on the Orontes, immediately beyond AL MINA, was an 'important point of ingress from the sea' during the period of Urartian expansion in North Syria. In fact, these entrepôts and their access to the overland trade attracted Phoenician and Cypriot traders as well as the Euboeans, cf. red-slip and black-on-red wares in level VIII. Riis suggests that there may even have been a deliberate attempt to break the Phoenician maritime monopoly if, for example, Hama, the dominant Central Syrian state and 'true masters of the region' at that time encouraged the Greeks to settle in coastal sites ravaged by Shalmaneser III:

'For one or two decades after 844 the propitious conditions prevailed, and therefore we may well accept the date of about 825 B.C. suggested by Miss Du Plat Taylor for the foundation of the settlement at Al Mina as an approximate indication of the time for all the early Greek settlements in Northern Phoenicia, thus also at Sūkās and eventually Tabbat al-Hammām.'  
(1970, 162)

Winter (1973, 418) also regards the distribution of North Syrian objects in Greece, as well as Ionia and Anatolia, as a consequence of this direct trading relationship (see map 1, for ivory products, map 2

for metalwork, and map 3 for steatite). She notes that nothing Phoenician is found in Greece that could be earlier than the KERAMEIKOS bowl (mid 9th century, eg. Coldstream 1968, 344) which she designates as a North Syrian product.

Thus, we have the Greeks in direct contact with the major Western Asiatic trading sphere of Urartu-Phrygia-North Syria from the middle of the 9th century. This presents us with two crucial problems:

What was the object of Greek trade and what was their contribution to the trading sphere?

Were the Phoenicians in competition with the Greeks, ie. using the same outlets as the Greeks, or were they established at sites like AL MINA in order to trade with the Greeks?

Neither issue can be satisfactorily resolved, but we can propose preliminary solutions. Firstly, the need for iron and copper are the motives usually attributed to Greeks establishing trading posts in Cilicia and Syria (eg. Boardman 1973, 42-5). To this, Riis adds requirements for timber and oil, and probably linen too (1970, 160ff). Both believe that the Greeks would have supplied their Near Eastern trading partners with slaves, to which Riis adds 'hides, cattle, furs and dried fish'.

Thus, we can propose that once again the Greeks were establishing trading posts in the Near East to obtain essential commodities. In this case - unlike the Mycenaean - it is largely for the development of manufacturing industries, as will be described below for Euboea. By supplying the North Syrians with the produce of extensive stock-breeding including cattle, which we know from the Assyrian tribute lists to have been greatly valued, the traders were able to obtain the metals they required and possibly also oil. Certain luxury items, such as bronze vessels or ivory, probably accompanied the essential commodities: a bronze vessel handle and a partially worked ivory tusk were found at



AL MINA (Boardman 1965, 13). S. S. Smith regards AL MINA as the source of North Syrian influence (particularly from CARCHEMISH) on bronzework found in Rhodes (1942). But timber and linen were more likely to have been obtained from Phoenician merchants calling at, or residing in, the same ports.. Riis mentions the re-introduction of oil-lamps at this time in Greece: they are derived from the Syro-Phoenician lamps (1970, 168). He also remarks on the fact that Phoenician fishing methods were unsuitable for catching the mackerel and tunny most appropriate for drying (p.165) and essential for maritime ventures.

Muhly (1970, 47 note 222) cites the evidence for Phoenician ear-rings associated with a Phoenician variegated glass bead, Phoenician ivory seals, and faience beads (Smithson 1968), in a mid 9th century tomb from the Agora, ie. contemporary with the Kerameikos bowl. Higgins believes that these ear-rings were made 'for the Greek market' by Phoenicians (1969, 144-5, Pl.34, j-k). In fact, Higgins regards other gold jewellery from late 8th and early 7th century graves as the products of Phoenician craftsmen established in Athens: the jewellery consists of gold, faience and amber. The centre of production, he admits, is difficult to establish since 'we have no direct evidence of Phoenician jewellery between ... [the 8th century] and the 7th century B.C.' (Higgins 1969, 146).

In the case of the linen, as later with papyrus too, Riis proposes the intervention of Phoenicians:

'... there is every reason to believe that the trade with Egypt to a very great extent in the days before the Saïte dynasty perhaps almost exclusively passed through Phoenician hands.'

(1970, 166)

The bronze vessel handle from AL MINA is also possibly a Phoenician product (cf. Boardman 1965, 13, Fig.3). But the virtual absence of Greek vases in Phoenicia and their regular occurrence with Phoenician and Cypriot wares in sites like AL MINA would imply that transactions between the Phoenicians and Greeks were secondary to the major Greek-Syrian trade and that at this stage Phoenicians were not encouraged to enter Aegean

waters (cf. Barnett 1948, 6). The penetration of Cypro-Phoenician wares inland, as far as ZINJIRLI, TELL HALAF, CARCHEMISH and NIMRUD, is described by Du Plat Taylor (1959).

However, with the re-assertion of Assyrian dominance and the destruction of the Urartian-North Syrian axis in the late 8th century this Syro-Phoenician-Greek trade was threatened and by the end of the 8th century totally disrupted. Tarsus is thought to have been destroyed in 696 by Sennacherib (though Boardman believes that it may have been abandoned (1965, 10-11)) and AL MINA was abandoned at about the same time (eg. Du Plat Taylor 1959, 87).

Corresponding with the decline of the coastal trading posts in the late 8th century, we see the increase in the importance of the overland route across the Anatolian plateau to the Greek cities on the Ionian coast along which Urartian and West Anatolian - and possibly even Iranian - bronzes reached the west via Ionia (eg. Barnett 1956b; Birmingham 1961). Birmingham's map of the distribution of these bronzes, reaching Etruria, indicates that this network is separate from the Assyrian-Levantine network of the late 8th and 7th centuries (1961, Fig.11). The re-appearance of Greek traders at TARSUS and AL MINA after a brief period of abandonment may represent the attempt by the Eastern Greeks and Corinthians to establish contact with the Assyrian-Levantine network.

## 2 The Western foundations

The interruption of trading relations with the Near East due to the disruption of routes to and the eventual destruction of the coastal trading posts obviously had different consequences depending on the degree of involvement of the Greek partners in the trade. We know that the majority of the Greek wares found at AL MINA (and other Near Eastern sites) - and therefore presumably the traders - originated in the Thessalian-Euboean-Cycladic network that Coldstream identified in the late 10th century. The dominance of Euboea in this network was predicted



by Boardman (eg. 1957) before the conclusive identification of the MG skyphoi as of Euboean origin. The precocity of Euboean ventures in the East is now paralleled in the West, where a first glimpse of a pendent semicircle skyphos has been sighted by Ridgway and Dickinson (1973), although its context (VEII IIA) is dominated by the MG chevron skyphos. In the West, Ridgway would therefore replace Blakeway's (1935) concept of 'trade before the flag', ie. pre-colonial trade, with a picture of Euboean or Euboeo-Cycladic trade with the West that is 'para-colonial' in the sense that it is likely to have been the raison d'être of the two earliest foundations (both Euboean), sited as they are in the most northerly area to be settled by the Greeks (eg. Ridgway 1967). (See Figure 4 for locations.)

The activities of Euboean traders in the West is suggested by the finds of characteristic Euboean skyphoi - the chevron skyphoi or 'Cycladic cups' - in a number of Central Italian sites: in the Quattro Fontanili cemetery of VEII (Southern Etruria); in the Iron Age cemetery of OSTA at CUMAE, and at CAPUA and PONTECAGNANO (Campania). (see Ridgway 1967, 1973; Ridgway and Dickinson 1974). Their context is best dated at VEII, where they are found in VEII IIA contexts (c.800-760) (Close-Brooks' chronology cited by Ridgway 1973, 26); in Campania their occurrence ceases with the foundation of PITHECUSAE on Ischia between 775 and 760 (Buchner 1964; Coldstream 1968, 354). Ridgway connects these finds of Euboean pottery, and the occasional 'oriental trinket' (1973, 27) from the same contexts, with the activities of Euboean prospectors for metal whose activities resulted in an expansion of local metalworking, as recognised in the increased number of both bronze and iron finds in VEII IIA, compared with VEII I.

Coldstream refers to the 'oriental objects' found in Central Italy, contemporary with or directly associated with the Euboean skyphoi: 2 paste scarabs were found in VEII IIA graves in the Quattro Fontanili cemetery, G 24 and GH 25; and an Egyptianizing faience statuette was associated in a grave with two 'skyphoi of Atticizing MG II type, imported from somewhere in the Euboeo-Cycladic area' in the native OSTA cemetery at CUMAE (1968, 355) and a similar statuette is known from VEII (Ridgway 1973, 27).

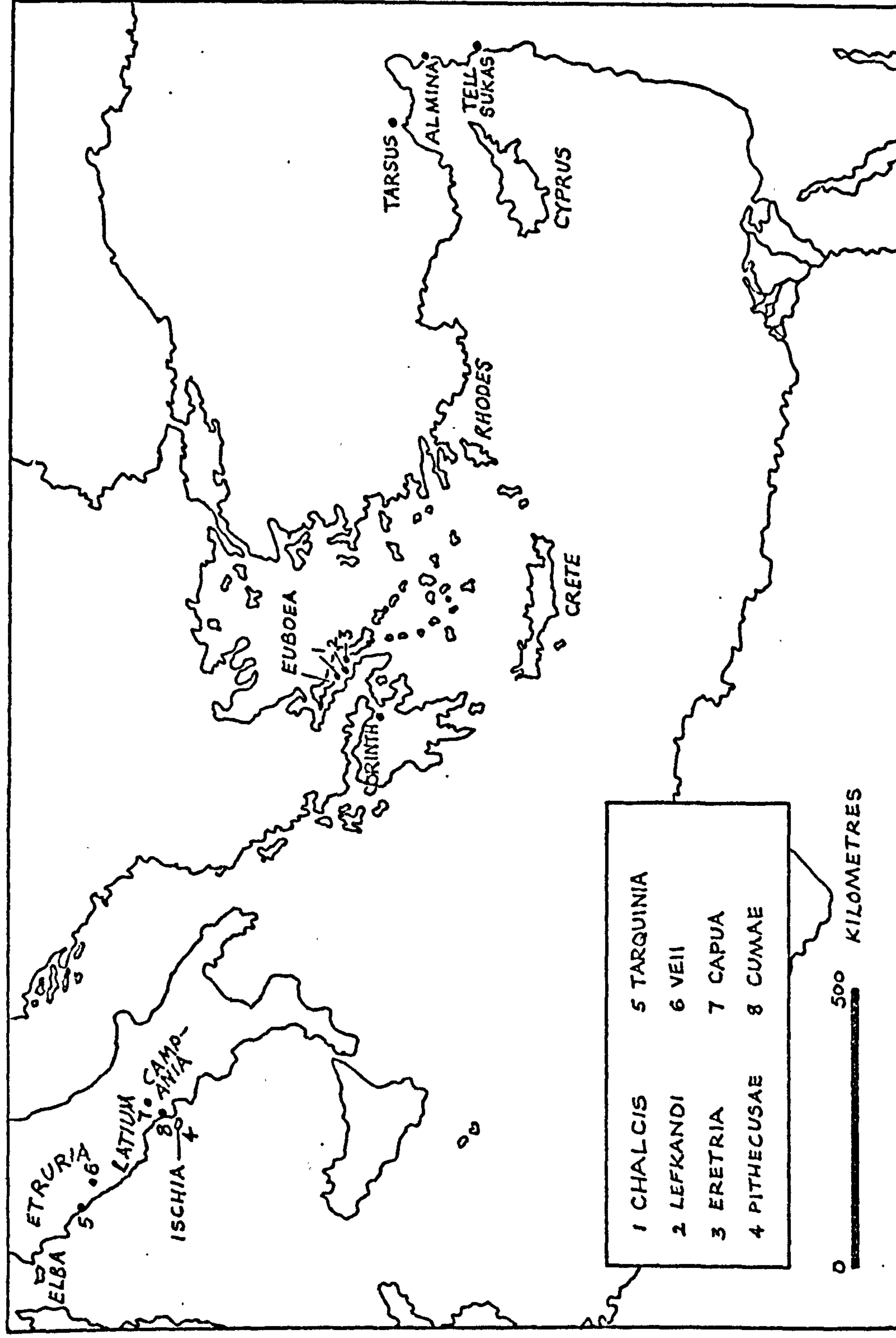


Figure 4: Euboeans in the Eastern and Central Mediterranean (initial expansion).



'... it appears that the Euboeans and their confederates were already active in the Etruscan market during the generation before the first colonists came to Pitheculsae.'

(Coldstream 1968, 355)

It is tempting to predict here that the role of these 'confederates' and the 'Levantine contacts' of the Euboean traders will eventually be seen to be quite significant.\* At present one can only say that the exploratory expeditions to Central Italy appear to have set off from the Levantine coastal sites where Euboeans and Phoenicians interacted. The early 8th century was a time in which the Phoenician cities were peripheral to the main regional trading system in the Near East and therefore had to maintain and if possible expand their own trade network. The crisis for the Euboeans involved in the Near Eastern regional system occurred during the last third of the 8th century when the Assyrians, in particular Sargon II, followed a 'thorough and ruthless policy of transporting foreign populations and resettling them in far distant localities' (W. S. Smith 1965, 55). This involved specific craftsmen as well as entire populations of certain North Syrian cities. Inevitably, the production of North Syrian luxury goods - such as the ivory and fine metal work - was abandoned, since the 'viable economy' of which it was a part had been destroyed (Winter 1976, 19). Another consequence of this breakdown was the inability of the North Syrian cities to carry on as partners or intermediaries in the trade with the coastal centres.

We can therefore predict that the main interest of Phoenician merchants in the Euboean venture in the West dated to the first half of the 8th century before they were drawn into the main East-West Asiatic trade routes by the Assyrians (from c.744 onwards). So far, more evidence than has been published has been found on Ischia to testify to the

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\* Rébuffat (1966) believes that Phoenicians were established at the mouth of the Tiber by the end of the 7th century: this is based on his interpretation of the 'pacotille égypto-phénicienne' found in late 7th and 6th century contexts in Rome and Latium, and the possible existence of a sanctuary of Melqart near the port of the Tiber.

Phoenician involvement. Parallels for the Phoenician material from RÍO TINTO (Spain) have been claimed (Ridgway 1973, 16-17) and an inscription on a sherd that was formerly thought to be Greek has now been identified as Phoenician (Ridgway, lecture 1976). Furthermore, a coarse ware amphora 'of Greek type' was found in a 'family plot' (as defined by Buchner) within the necropolis: it contained the bones of a baby but had originally served as a wine container and the word 'double' is inscribed on it in both Greek and Phoenician; on the handle was a Semitic funerary inscription (Ridgway lecture 1976). Ridgway regards this amphora - particularly the funerary inscription - as evidence of Phoenician involvement in the burial itself, and by implication with the 'family' in whose plot it was placed.

During their phase of greatest expansion, when the Assyrians promoted Phoenician trade for their own benefit, the Phoenicians continued to use Ischia, probably as a base for trade further west. This would correspond with the Euboean crisis in the East and the intensification of production activities on Ischia, probably with Asiatic and perhaps with Corinthian craftsmen.\*

The Euboeans established a base at PITHECUSAE, following a phase of trade and/or prospecting, in order to organise more closely the trade in metals - for which they had previously relied on their Near Eastern trading partners - and thereby also contributed substantially to the scale of Villanovan metal-working. Humphreys notes that

'the settlement on Ischia may, like those in Syria, have been organised by traders who wanted a friendly base where they could winter, repair their ships, or pick up cargoes which had already been collected for them by middlemen'

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\* It is possible that the early involvement of Corinth in the Western ventures was due to the beginning of the crossing of the Isthmus to sail from Corinth, rather than risk the 'formidable obstacle' (cf. Coldstream 1968, 340) that Cape Melea presented. A canal across the isthmus is known from the 7th century.



but since it was established among people not - at that stage - producing agricultural surpluses for redistribution or exchange,

'the settlement had to provide for itself, and must from the first have included farmers and craftsmen. In this, and in the fact that it was not subject to any powerful neighbouring civilisation, Pitheculsae resembled the later colonies in the west, even if its organisation in the beginning was not the same.'

(Humphreys 1965, p.5 of author's English version)

The use of amber - as well as gold and faience - in 8th and 7th century jewellery has been noted by Higgins (1969). Amber is a good example of the type of high value/low bulk commodity that could have been the object of Euboean production activities in Ischia. The re-orientation of trade routes to the south in Central Europe is certain to have included the trade in amber. Another source of amber reaching Etruria and the Greek colonies in the late 8th and 7th centuries, carried by Phoenicians, will be discussed in Part II.

The first phase of the settlement on Ischia is characterised by the use of the AETOS 666 kotylae - Corinthian LG I - associated with Rhodian and Phoenician aryballoi (eg. Ridgway 1973), and dated to c.775-750 (Buchner 1964). A 'Euboean' pottery industry was established on Ischia, producing distinctive 'Corinthianising' Euboean Geometric style wares for local use and apparently for exchange, as finds in Etruria, eg. at BISENZIO and VULCI (Buchner 1971) in Campania, and from SANT'OMOBONO, Rome (Ridgway 1974) would suggest. Distinctly Euboean elements are recognised in this Ischian school: eg. the 'tree of life motif', certain shapes - like splayed neck amphorae and oinochoe with cutaway necks - and the use of some Euboean decorative features (Boardman 1970, 104-110). Certain imitations of Corinthian slow-pouring vessels made on Ischia in Euboean style, eg. the conical lekythos-oinochoe, the

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\* The earliest Greek example of this oriental motif is on the LG ovoid krater from KOURION, Cyprus, attributed to the 'Cesnola Painter', which Coldstream now regards as a Euboean product (1971).

globular aryballos and the ovoid lekythos (ultimately derived from the Phoenician red slip flasks, according to Coldstream, and the trefoil-lipped oinochoe which are rarely found in Euboea: 'Of the slow-pouring forms suitable for oil or unguents there is hardly any trace at home...' (Coldstream 1968, 191).

The same is true of the 3-legged bowls and the bowls with lug-handles (Boardman 1970). Thus, there is a certain 'independence' recognisable in the Ischian 'Euboean LG' (eg. Popham and Sackett 1968, 33) pottery due to its combination of Euboean and Corinthian elements as well as the difference in shapes produced, eg. the flasks and the three-legged bowls. Significantly, both types are characteristic of Phoenician sites in the 8th century (cf. Culican 1970b) which would imply some orientation of local production due to the influence or needs of the 'Phoenician traders [who] may have come this way' (Coldstream 1968, 370).

It is hardly surprising to find that iron was worked within the Ischian settlement in the SCARICO GOSETTI area, since the Euboeans had an iron-using technology since the 11th century. The working of ores from Elba (Buchner 1970) should not be attributed too significant a role in the reason for the foundation of the site (cf. Buchner 1971), but should be regarded as an essential activity of a Euboean establishment.\* On the other hand, the theory of the exploitation of Tuscan copper resources as the reason for the foundation of the settlement is in itself more credible and is also being confirmed by finds from the recent excavations. Of the four structures known from the MAZZOLA settlement area, only one appears to be for habitation and the other three for metal-working: especially bronze. Buchner (1971) describes the accumulation of casting debris, bits of sheet and wire, slag and ingots and a 'miscast fibula, with casting seams, discarded because the foot was too short' (p.66). Ridgway (1973, 28) refers to finds of late 8th century

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\* It should be noted that the slag and tuyères (cf. Ridgway 1973, 17-18) came from unstratified material (Buchner 1966) and the slag found in the necropolis was found in what is described as 'an 8th century level'. Klein (1972) lists disc-shaped bronze weights, an anvil, bloom, etc. amongst the evidence for metalworking in the MAZZOLA area.



fibulae and an impasto amphora from Etruria, and a piece of a tripod mould (Ridgway, lecture 1976). This evidence for bronze working is particularly important since the virtual absence of metal in the graves excavated to date on Ischia (Ridgway, lecture 1976) implies that the bronze work was not intended for local consumption. Instead, we must envisage the procurement of copper for shipment back to the Euboean (and later other Greek) cities, a strategy that was possibly veiled by the existence of bronze workshops producing both specialised items - of general oriental origin - such as bowls and tripods, and commodities of general use in Etruria, like the fibulae, essentially for local exchange.

In addition to the bronze workshops, the existence of goldsmiths' workshops is proposed by Ridgway (1973, 21-3) and Buchner, who interpret Strabo's 'gold mines' (Geog. V, 4, 9 transl. H. L. Jones) as 'gold workshops'. (J. Bérard 1957, 43 note 1, following Pliny, interpreted them as pottery workshops.) Thus it is quite feasible that the Euboean inhabitants of PITHECUSAE, together with Phoenician and perhaps even Syrian contingents, had more than skyphoi and a handful of trinkets to offer. Their skills in producing fine bronze and gold work, ivory and possibly faience objects, using Asiatic and Aegean techniques and designs, were transmitted here - as they had been within the Eastern Mediterranean - by the establishment of specialist workshops. For example, Peltenburg (1969) considers the migration of craftsmen as one of the ways in which Near Eastern techniques (often of Mesopotamian origin, as in the case of the polychrome glazed vessels) were introduced into the West, especially at the end of the 8th century: 'a most disruptive period in the Near East' when craftsmen may have fled to the West as an alternative to being displaced by the Assyrian kings: for example, Esarhaddon is known to have taken Egyptian goldsmiths and cabinet-makers back to Assyria (W. S. Smith 1965, 55ff).

Recently, a Phoenician relief bowl, similar to the one from VETULONIA (found in a context now correlated with Villanovan II B at TARQUINIA and VEII) was found in a mid 8th century context at FRANCAVILLA MARITTIMA, Calabria; both 'recall those excavated at Nimrud' according to Ridgway (1974, 54). There is also the evidence of the Urartian type

bronze cauldrons, with bull's head protomes, from CUMAE (Coldstream 1968, 370)\* and the use at CUMAE of bronze cauldrons (which C. Bérard (1970, 22) believes to be of Asiatic origin) in burials. The production of bronze cauldrons - of Asiatic design - for the Euboean settlers of CUMAE may have been a later stage of the bronze working established from the outset at PITHECUSAE.

But craftsmen did not set off in vacuo in the hope of establishing their workshops abroad. They would have had to be guided by traders, probably still operating in the Levant, to new centres in which they and their families could establish themselves. A particular advantage would be recognised in settling in a newly-founded settlement where the rights of membership (rather than 'citizenship') and perhaps land were offered to people of different ethnic origin as well as to Greeks from different areas. Thus it is possible to propose a primary role in the dissemination of oriental techniques and the communication of craft skills by the inhabitants\*\*of PITHECUSAE which resulted in the establishment of the Orientalising schools of Etruria in the 7th century, as best known from their products in tombs like REGOLINI GALASSI, Cerveteri, and TUMBE DEL DUCE, Vetulonia. At PRAENESTE the products of the local Orientalising schools were associated with their Syrian and Phoenician 'prototypes' (Aubet 1971a).

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\* These are dealt with in Amandry 1956; Maxwell-Hyslop 1956; Hawkes and Smith 1957. Birmingham (1961, 191) believes that the Copenhagen vessel, thought to come from Cumae, was Phrygian and therefore reached the west from Ionia.

\*\* The suggestion by Barnett (1948) and others that Phoenician ivory workers were later established in Etruria is discussed above. With regard to Orientalising, of course '... the transformation of the Villanovan by the Orientalizing phenomenon towards the end of the eighth century and the beginning of the seventh' involved far more than the establishment of workshops for the production of luxury commodities (Pallottino 1975, 86) but was part of the emergence of the literate Etruscan civilisation which came to contest Greek dominance in the Central Mediterranean.



### 3 The Euboean case: the processes of Greek colonisation

At PITHECUSAE and other Euboean sites in the west (see below), more Corinthian than Euboean wares were imported in the late 8th century (cf. Coldstream 1968, 369) and in the 7th century Corinthians - using the MPC ovoid aryballoi (and other distinctive wares) - had taken over. As in the East, Corinthians and Eastern Greeks re-established some of the 8th century Euboean trading posts.

The Euboean trading enterprise in the East and West should be briefly summarised before proceeding to an examination of the context of the trade and the consequences of its subsequent decline: 'In the East, Euboean merchants were established at entrepôt sites like AL MINA, SUKAS, in the second half of the 9th century. Until the second quarter - or possibly the first quarter - of the 8th century conditions in the Near East favoured their presence on the coastal strip, and there was easy access to the cities of North Syria. They were evidently able to supply their Near Eastern trading partners - whether Syrian or Phoenician or Israelite - with commodities which secured for the Euboeans a regular supply of metals, technically advanced metalwork (cf. Winter 1973, 399), possibly timber, agricultural produce and maybe horses and slaves. But, following a brief period of abandonment - corresponding to the onslaught of the Assyrians in the late 8th century - the Euboeans were no longer among the Greek traders active in the Near East.

In the West, Euboeans appear to have established relations with the Iron Age inhabitants of Central Italy; their objective is taken to be access to the metal resources of Etruria. It can be suggested that the settlement established in the mid 8th century on Ischia by the Euboeans was quite unlike their 'quarter' at AL MINA (and other Near Eastern sites where their presence is recorded) in that PITHECUSAE was essentially a centre of production, initially of pottery and iron, then bronze production was initiated, largely for exchange. This function as a production centre might have attracted Phoenician craftsmen and merchants during the mid 8th century and, later in the 8th century, refugees from the North Syrian cities that were being laid waste by the Assyrians.

Interaction with the indigenous inhabitants of Campania and Southern Etruria is known for the entire 8th century occupation of PITHECUSAE. There is now evidence of 'Corinthian Geometric pottery' and later 'scarabs, glass and amber' in a site at FRANCAVILLE near Sybaris that pre-dates the Greek colonies in that area (Graham 1971, 45). And at CASTEL DI DECIMA, south of Rome, 'princely' tombs of the late 8th century contained an EPC aryballos and later pottery imports, also large quantities of bronze, including tripods and bowls, silver etc (Ridgway 1974)\*. The establishment of Chalcidean colonies on the mainland opposite Ischia at CUMAE and in the Messenian straits area imply, respectively, the success of their interaction in Central Italy and the interest of the Chalcideans and Corinthians in maintaining and boosting these contacts.\*\* This will be discussed below.

We are dealing in the 9th and 8th centuries with the period of the development of the polis in many parts of the Greek world. As part of this process, the rights and powers of the nobility were institutionalised, but a significant structural change occurred as trade and commercial activities created a new form of wealth, in addition to land. According to Finley (1960) the productive force of all Greek city-states was dependent labour, ie. non-citizens of varying statuses and increasingly chattel slaves, who were obtained as captives or through trade. He

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\* Whilst still advocating an Asiatic origin of the Etruscans, Maxwell-Hyslop proposed that in addition to the obviously imported (Urartian) 8th century bronze vessels found in Etruria, the BARBERINI base and cauldron, the BERNARDINI cauldron stand and bowl with tripod, the VETULONIA cauldrons, and PERACHORA griffin protome, others were produced in Etruria. The latter were manufactured after Urartian control of North Syria was broken in 742: they were made by 'metal-smiths who were ... in a position to train local craftsmen'. In the 7th century Phoenician products replaced the Asiatic overland supplies. (1956, 160-165).

\*\* Although some aspects of this initial phase of colonisation will be considered here, no attempt is made to give a complete account of Greek colonisation in the West, for which see: Blakeway 1935; Dunbabin 1948; J. Bérard 1957, chs.I and II; Vallet 1958; Cook 1962; Woodhead 1966, chs.I-III; Coldstream 1968; Mossé 1970, ch.IIA; Graham 1971; Ridgway 1973; etc.



takes the view that dependent labour was used both in manufacturing industries and in agricultural activities:

'... the large landholders, a minority though they were, constituted the political ... elite of the Greek world; our evidence reveals remarkably few names of any consequence whose economic base was outside the land. This landholding elite tended to become more and more of an absentee group in the course of Greek history; but early or late, whether they sat on their estates or in the cities, dependent labour worked on their land as a basic rule... In some areas it took the form of helotage, and in the archaic period, of debt-bondage, but generally the form was outright slavery.'

(pp.148-9)

Hesiod, a small-holder and poet of Boeotia in the 7th century, advises his brother on how to use his slaves (Works and Days, lines 597ff); he also warns him against the 'bribe swallowing nobles' (line 264); and entreats him to 'please the gods', 'so that you may buy the lands of other men, and they may not buy yours' (lines 342-3).\*

We also have archaeological evidence for the existence of this nobility, eg. in the KEREMAIKOS and AGORA cemeteries at Athens (eg. the 'warrior graves' of the KEREMAIKOS and AGORA Grave XXVII (Blegen 1952)). The exceptional AGORA grave, dated to c.850, of a woman buried with a number of unusually fine local EG II pottery and a variety of other goods, which make it 'probably the richest post-Mycenaean grave in Athens', provides interesting information of the external connections of the Attic nobility as well as indications of the hereditary nature of their membership.

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\* The much disputed question of alienability of land in the Archaic period is dealt with by Finley (1968).

'Its contents, including granulated and filigreed gold jewelry, ivory stamp seals, faience and glass beads, present a picture of imported luxury and local technical accomplishment that was hitherto barely hinted at for Athens in the middle of the 9th century B.C.'

(Smithson 1968, 78)

Smithson regards the pottery chest with 5 granaries on the lid as of particular significance as a status indicator, ie. as a symbol of the status of the woman's father, a man of the highest propertied class (cf. the pentakosiomedimnos of 5th century Athens). In general he believes that we are dealing with the emergence of wealthy propertied families who were 'perhaps also the directors of an expanding overseas trade' (p.83), as represented by this burial in the AGORA and the KERAMEIKOS graves (G 41, 42 and 43) which also contain 'exotic' items of local or foreign manufacture.

The development of this nobility in 8th and 7th century Athens can be summarised to some extent by examining briefly the conditions prevailing at the time of Solon's archonship and reforms (c.594) (eg. Ehrenberg 1973, 50-76). Solon's writings are known by later writers, such as Plutarch (Life of Solon), and Aristotle, and include the well-known 'Disburdening ordinance'. Solon was a member of a noble family but his wealth was based on commerce: he owned ships and had travelled to Egypt. Before c.600 BC, agricultural produce - wheat, wine and olive oil - accumulated by large landholders, with tenant and other forms of dependent labour, eg. the hektomorai, was used by the nobility for acquiring manufactured commodities through trade. When trade was intensified on the coast opposite Salamis (following its control by Athens), debt slaves came to be used in large numbers by the nobility in order to obtain the desired commodities which were not being produced in Athens (cf. French 1964). Solon is said to have cancelled all debts on personal security and restricted the export of agricultural produce to olive oil (Woodhouse 1938, 118). The Eupatrids were thereby deprived of some of their power, but not of their land and citizenship, which was still defined on the basis of land holding and agricultural produce (French 1964, 19; Finley



1973, 48). The maintenance of the essential agricultural resources was accompanied by the encouragement of manufacture, ie. the teaching of crafts was promoted and citizenship was offered to skilled craftsmen who would settle with their families in Athens (Adcock 1930). Chattel slaves came to play an increasingly important role in Athens. They were obtained in large numbers from the Black Sea area (cf. Finley 1962). Solon is also credited with issuing the first official Athenian coinage (see French 1964, 22) and changing the system of weights to comply with the more generally used Corinthian and Euboean systems.

Solon's reforms were clearly intended to promote the development of production and commerce and thereby the consolidation of the prosperity of more - rather than all - the citizens of Athens. The distribution of Attic Black Figure wares to the Northeast and to the West (eg. Dunbabin 1948, 241, App.III, 480-2) testifies to the success of the commercialisation of Athens in the 6th century.

The literary references we have to the powerful nobles of Boeotia and Attica in the 7th century cannot be applied directly to other areas, but the general nature of these problems is recognised, for example by Austin and Vidal-Naquet:

'Le cas d'Athènes est le seul qui soit relativement connu pour l'époque archaïque. Mais il est certain que des problèmes semblables se sont posés ailleurs dans le monde grec ...'

(1972, 77)

The nobility of Chalcis was known as the Hippobotai, the horse breeders (Ehrenberg 1972, 18), a name which is thought to refer to the pre-hoplite, ie. pre 7th century, period. The archaeological evidence for their existence in the Protogeometric and Geometric periods in Euboea, and the evidence for commerce as a basis of wealth, will be described here. By examining the evidence from Euboea for the period when the Euboeans dominated the Aegean trade with the Near East and the subsequent period of conflict and contraction, it is hoped to elucidate the context of the initial Chalcidean colonisation in the West.

The recent excavations at Lefkandi of part of a PG cemetery and the settlement on the XEROPOLIS hill have provided us with a framework into which the little that is known about 9th and 8th century ERETRIA and CHALCIS can be fitted. XEROPOLIS is a small hill, near modern Lefkandi, on the eastern edge of the Lelantine plain. The land between Lefkandi and ERETRIA contrasts greatly with the fertile plain between Lefkandi and Chalcis (Popham and Sackett 1968, 4). The PG cemetery finds are considered to be early in the Euboean PG sequence, ie. there is a group of PG vessels with Cretan and Cypriot - but no Attic - influence, paralleled by finds in CHALCIS, and dated to c.1050-975. Later (c.early-mid 10th century), a belly-handled amphora is found associated with a cast bronze vessel (Popham and Sackett 1968, 23).

The material from the PG settlement is mainly from pit-fills but 3 phases of occupation - from late 10th to mid 8th century - have been identified on the basis of stratigraphy and stylistic analysis of the pottery. Despite the rare example of Attic EG and MG imports, a 'conservatism' of style is noted in the local pottery production which includes the characteristic skyphoi with pendent semi-circle (cf. Attic EG) and later concentric circle decoration (cf. Attic MG) (Popham and Sackett 1968, 26).

Thus, the distinctive Euboean wares known from AL MINA and other Near Eastern sites, and from the West, are now known to have been used and probably produced in LEFKANDI. This does not exclude the existence of other production centres, eg. at CHALCIS where Coldstream believes the Cesnola Painter worked (1971). The evidence for bronze working (described by Catling in Popham and Sackett 1968, 28-9) is important: there are a couple of crucible fragments but most of the material is foundry refuse, mainly mould fragments consisting of matrix and envelope clay, which would have been the 'routine sweepings of a busy workshop' and 'provide one of the clearest pieces of evidence at present available to demonstrate the continuance of a sophisticated bronze-working technology in the Greek Dark Age' (p.29). The foundry material is part of the earliest PG occupation debris on XEROPOLIS, contemporary with Attic Late PG, probably dating from the second half of the 10th century (c.900 at the latest) (p.29, using Coldstream's chronology (Coldstream 1968)).



Bronze was used in some quantity as cauldrons in Geometric graves of the 9th century at Athens and the Euboean manufacturing centres - with their access to the Urartian-Syrian prototypes and raw materials - were probably playing an important role in their distribution.\* The name of the city of Chalcis is derived from the word for 'ore' (Auberson and Schefold 1972, 21) and since it has not been possible to identify anything resembling the PG floruit of Euboea in later centuries, their reputation as bronze-workers and designers of the hoplite bronze panoply must stem from this Late PG and initial LG period when their involvement in the procurement of metal resources and apparent production of bronze work - as known now for LEFKANDI and PITHECUSAE - was greatest (cf. Snodgrass 1964 and 1967, 70-71).

Popham and Sackett (1968, 23) note that 'The Protogeometric settlement was large and must have been of considerable importance, probably more so than its Geometric successor', and confirmation of this 'importance' until c.750 is found in the graves:

'Objects which illustrate the foreign trade relations of Lefkandi in the tenth and ninth centuries B.C. include a Cypriot flask found in a shaft grave which also contained an interesting clay chest and amphoriskos brought from Attica. With these were also found two small duck vases. A small flask comes from Palestine, two seals and a scarab are of Palestinian or Egyptian origin. Two bronze bowls are of Cypriot type, and a small jug, identical with another found in Crete, has been attributed to Egypt. Numerous small objects of gold were found, and some in ivory and amber, all of which must have been imported. The position of Euboea, and the inhabitants of Lefkandi in particular, as leaders in trade is thus confirmed.'

(Sackett and Popham 1972, 16-18)

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\* Maxwell-Hyslop (1956) notes that the Vannic bronzework found in OLYMPIA and other Aegean sites is on a larger scale than formerly anticipated and should therefore be 'explained both by the departure of smiths from North Syria and the efficient operation of the trade route, probably by Greek sailors' (p.166).

In summary, we can say that LEFKANDI appears to have been the dominant PG centre in Euboea; it had a port and its location gave access to the Lelantine plain; bronze-working was established there in the earliest known PG phase (Boardman 1970).

ERETRIA appears to have been substantially occupied from the 8th century, although some PG material is known from the necropolis and another probable settlement about 2 kilometres away (Auberson and Schefold 1972, 16). (In all, 14 sites with PG material have been located in Euboea, none of which are south of Amarynthos (Sackett et al 1966).) The LG material from ERETRIA is similar in range and variety to that found in LG LEFKANDI and the 'scraps from CHALCIS are of the same general type' (Popham and Sackett 1968, 33). As yet, there is insufficient material from ERETRIA for the attempts at identifying specifically 'Eretrean' types to have been of much success (cf. Boardman 1952; Kahil 1968; Boardman 1970). It is still not clear whether or not the inhabitants of LEFKANDI came to settle in ERETRIA (as believed by Auberson and Schefold). It is significant, however, that ERETRIA appears to have been fortified from the beginning of the Geometric occupation (Auberson and Schefold 1972, eg. p.40). Kahil (1968) dates the earliest Geometric material, from the lowest levels of the Temple of Apollo and some sherds from the heroon, to the first half of the 8th century, but most of it is later: ie. late 8th and early 7th centuries. According to Boardman, 'Strabo's record of Eretria's dominion over "Andros, Tenos, Keos and other islands" is most plausibly referred to the eighth century' (1957, 24).

Near the West Gate, a group of Late Geometric graves including 6 cremations in bronze cauldrons and 9 inhumations accompanied by various goods have been excavated. The bronze cauldrons were associated with bronze and iron weapons - including 4 swords; Tomb 6 also contained a silver ring, a fragment of copper, gold and iron fragments (from a fibula?) and a double scarab seal in a gold and silver mount, which is probably a late 8th century Phoenician product (C. Bérard 1970, 16). An exceptional inhumation grave, no.14, contained gold and glass jewellery; another, no.11, contained an amber bead (C. Bérard 1970, 16



and 33). Bérard stresses the parallels for many of the rites found here in PITHECUSAE and CUMAE, eg. the use of bronze cauldrons as ash-urns (1970, 48ff) (but these were also used in Athens in the 9th century - cf. Kurtz and Boardman 1971, 53). He derives the cauldrons from Western Asia, but Schefold (in the Introduction to C, Bérard 1970) specifies their local manufacture. In addition to the contents, the special nature of these graves is portrayed by the fact that they were originally situated within an enclosure and later a heroon was constructed on the enclosed area. They are dated to c.720-680 and clearly represent the graves of Euboean nobles, still acquiring or else cherishing the oriental luxuries that had been more freely available in the earlier part of the 8th century. It is possible, as suggested by Kurtz and Boardman, that they 'have something to do with the founding family of the city' (1971, 183).

The inclusion of weapons in most of the cremation burials reflects the conditions of conflict at this time in Euboea, but the occurrence of the luxury items, thought to come from Rhodes, Cyprus, the Cyclades and possibly Phoenicia, may denote the survival of some Eastern Mediterranean commerce at ERETRIA, with which the local manufacture of the bronze cauldrons can be connected. Thus, it is possible that ERETRIA 'survived' the conflict with CHALCIS - known as the Lelantine war - by establishing a more restricted trading network (and some colonies in Chalkidike) within the Eastern Mediterranean, whilst CHALCIS adopted a different strategy (to be discussed below). Auberson and Schefold (1972) attribute a significant new institution to this period, viz.

'... die Einrichtung der "Aeinautai", eines Flottendienstes bestimmter Adelsfamilien, die die Seeherrschaft Eretrias durch stets Patrouillieren zu überwachen hatten'.

(p.24)

And Descoeudres (1968) remarks on the Cretan, Cypriot, Rhodian and Ionian influences on 7th and 6th century Eretrian pottery which, he believes, would confirm the important 'middleman' role of Eretria, a 'town of merchants', in the Aegean. The recent find on Thera of a

Euboean amphora - with grazing horse decoration - and a bronze rod-tripod in a late 8th century Geometric tomb (associated with PC vases) would support the proposed continuation of a restricted Eastern Mediterranean trading network. There is further evidence for the territorial survival of the city of Eretria from the end of the 8th century to the 6th century in the fact that Eretria is known to have had a large dependent territory in the 6th century, issued more coins than Chalcis and continued to pay tribute to Athens whilst an Athenian colony was established in Chalcis (Wallace 1947). Boardman also puts forward the view that

'... Eretria enjoyed continuous prosperity from the eighth to the sixth century with no alarming disasters or change of population; that Chalcis early in the seventh century fell from prosperity, and was perhaps in part abandoned... One might further deduce that Eretria, her close and powerful neighbour, was the cause of this eclipse.'

(1957, 28)

In order to understand the Lelantine war (see eg. Andrewes 1974; Forrest 1957; Boardman 1957) and the subsequent or contemporary foundation of colonies by Chalcis, we must refer again to the Euboean cities' trade in the Near East. They had certainly established dominance over the access to metals, etc, through the Near Eastern trade and had even begun to supplement their supplies in Central Italy: presumably they controlled the distribution within the Aegean.\* However, with the crisis in the East, despite an attempt to establish in the West the scale of supply that had been met in the East, the role of the Euboean cities in the regional network was undermined. During the late 9th and early 8th centuries, they had come to depend on their trading partners for most supplies needed to support the large PG populations - of at least 3 major cities on the island - and to allow for the degree of prosperity we have observed at LEFKANDI.

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\* The existence of 'copper mines' noted in classical writings is not generally accepted (eg. Boardman 1957; Sackett et al 1966) but Snodgrass (1964, 183) believes in them.



Forrest dates the conflict, recorded by Herodotus (V, 99) and other writers, between Chalcis and Eretria, each with their own set of allies, to the last third of the 8th century, at a time when the hoplite technique of warfare was emerging in Greece (Forrest 1957). The hoplite equipment implied the abundance of bronze and the knowledge of both Asiatic and European bronze-work of the period (Forrest 1966, 88ff); it is not surprising, therefore, that Euboea is usually attributed a dominant role in the development of the equipment (Snodgrass 1964, 183, 200-202).

But the 'Lelantine war' and the foundation of Euboean - essentially Chalcidean - colonies in the West are consequences of the breakdown of the external relations of the Euboean cities and the ensuing crisis. According to Finley (1965), a significant increase in population could easily outstrip 'the available means' especially when in the case of urban centres there was considerable 'non-productive expenditure' associated with urban living. It is suggested here that the increase in population observed in Euboea in the late PG and LG periods could no longer be supported by the diminished productivity of the Euboean cities when their trading relations were severed. The difficulties involved in extending cultivation onto the hill-sides in the Aegean are described by Riis (1970, 167-8). The terracing and cultivation of the hill-sides would only have been profitable if restricted to certain high-yield crops - such as vines, olives and figs - which 'demanded more capital and labour than lowland farming and therefore was more easily disturbed' (p.167) for example by disruptions in labour supplies. In this context, a fertile lowland plain, like that between Lefkandi and Chalcis, can be expected to assume far greater significance than during times of stability and regular supplies - through trade - of essential foodstuffs and probably labour too.

As Boardman (1957 notes, the Lelantine plain

'... is geographically Chalcidian territory and so must always have been for as long as Chalcis was any sort of power. If possession of the plain was the objective, we can only conclude that Eretria was the aggressor, and it is important to remember that possession of the plain meant virtually possession of Chalcis.'

(p.27)

He suggests that 'commercial jealousies' rather than the 'possession of a handful of vineyards' would have been the prime motive of the war. But, as has been put forward here, the conflict between the cities was part of the struggle for survival of both Euboean centres. As Andrewes points out,

'Eretria suffered no lasting damage ... but Chalcis won at least one important victory in Euboea, and with her ally Corinth she secured the upper hand in the West.'

(1974, 40)

This is the context of the establishment of both the Northern and Western colonies by Chalcis: 'It seems then that colonisation in the north was roughly contemporary with colonisation in the west' and their founding before the end of the Lelantine war is suggested by the fact that Chalcis was aided by some of them (Forrest 1957, 165, note 7). Thus, following the period of joint foundations by Chalcis and Eretria (ie. Ischia and Cumae), the foundation of NAXOS, ZANKLE and RHEGION all appear to have been in association with Corinth and sanctioned by the Delphic Pythia (Forrest 1957). The association of Corinth in the functioning of the earliest Euboean settlements in the West has been described above.

In the case of CHALCIS, the foundation of colonies in the West can be regarded as a consequence of the population outstripping the means available to the Euboean cities with the cessation of their external supplies. Finley regards this 'hiving-off of surplus citizens ... sometimes by conquest, and not always with the consent of those being sent away' (1973, 172, and note 49) as one of the 'stop-gap' responses to this situation; the other being the acquisition of additional means, in the form of booty and tribute from conquests, ie. inter-city conflict, whereas the solution was to increase productivity:

'The so-called Greek colonisation period from about 750 to about 550 B.C., ... during which new and independent Greek states were established as far east as Trebizond on the Black Sea and as far west as Marseilles, represented no real gain to the original Greek settlements in the Aegean.'



They were merely the consequence of population outstripping the available means (even after allowance is made for inequitable distribution of goods).'

(Finley 1965, 45)

The archaeological evidence of the earliest levels of the Western colonies substantiates the classical chronologies of Thucydides and Eusebius and confirms the foundation dates of the earliest Sicilian and Southern Italian colonies in the 730's (Coldstream 1968, 332-7).

Chalcis is regarded as the 'mother-city' - but not the sole supplier of population - for ZANCLE and RHEGION, on either side of the straits of Messina, and of 3 cities in Eastern Sicily (see Boardman 1973, Dunbabin 1948, Ch.I; Bérard 1957, Ch.2; Vallet 1958). In the case of the founding of RHEGION, famine is said to have forced the city of Chalcis to dedicate a tenth of its population to Apollo, who guided them, and some Messenians, to RHEGION (see Parke 1939, 50-55, based on Strabo VI, C 257 and 260). The special role of the Pythian Apollo in both 'choosing' the oecist and assuring the success of the venture is recorded in many stories of the foundation of the Western colonies, in some cases the oracles have been recorded (see Parke 1939, Chs. I and II).

The motivation of the colonising cities is no longer regarded as either a consequence of 'over-population'\* or 'commercial interests'\*\*. Boardman (1973, Ch.5), Austin and Vidal-Naquet (1972, 81), Ehrenberg (1973, 14ff) and others now regard colonisation as a consequence of the internal organisation of the founder city - ie. agricultural production,

\* For example Cook (1946): 'The primary cause of Greek colonisation is usually and sensibly held to have been overpopulation. For this condition there were 3 practical solutions - to expand into neighbouring territory, to reduce the population by emigration, and to import food and other necessities which would have to be paid for by industrial exports or by services.' (p.79)

\*\* Mossé (1970) distinguishes between those colonies founded due to stenochoria, land-shortage, in the mother city, ie. agrarian colonies, and those founded for 'commercial' reasons, ie. the need for raw materials, especially metals (eg. pp.35-6).

conflict among land-holders or between land-holders and dependent labour - and its relations with other Greek and non-Greek cities.

This review of the Euboean cities and their activities in the Eastern and Central Mediterranean enables us to draw some conclusions about the nature of the colonisation of the Central and Western Mediterranean by the Greeks in the 8th to 6th centuries.

During the late 8th and 7th centuries the Greeks were increasingly excluded from the Near Eastern trade network. The Ionian cities were connected by inland routes to Phrygia and Lydia until the late 7th century (Birmingham 1961; Barnett 1956b; Will 1965), but the Euboean cities were eliminated from the trading system in the second half of the 8th century.

The consequences of the disruption of external relations depended on the degree of commercialisation and the capacity of the city to depend on its own hinterland for the supply of foodstuffs and on its own population for labour. That is, if the population had increased beyond the productive capacity of the hinterland by the importing of surplus foodstuffs, then, either local production would have to be intensified to make up the difference; or, alternative sources of imports would have to be found; or, population could be sent out. The solution open to individual cities would depend on the relationship between the size of the population and the ecology and productivity of the land, given a certain level of technology, and the efficiency and amounts of imports, ie. the trading position of the city. Those city states which were only peripherally involved in trade and sustained subsistence production in the hinterland would have been able to retain their population through intensification of agriculture, perhaps combined with a shift to alternative, sometimes still fairly local, sources of trade.\* And the land-based city states - like Sparta - would be relatively unaffected since its population remained rural, a tight control

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\* The foundation of Naucratis in the mid 7th century is relevant here. See Austin (1970).



over the distribution of land, what was produced on it and the distribution of resources, ensured relative autonomy and greater independence of external trading partners.\*

But, cities like those of Euboea, and Corinth, which had at an early stage opted for reliance on external sources of production to sustain them at the level of population density and general standard of living by importing surplus produce - as well as materials for production and exchange - were unable to resort to the above alternatives. The only solutions were to either redefine the commercial role with a new set of external trading partners (cf. Eretria) or to recreate such a system in an area that is politically and economically less well developed (cf. Chalcis and Corinth).

Thus, when a certain population density cannot be maintained, there is a demographic solution: ie. sending out population into neighbouring cities or into new territory as 'daughter cities'; or, there is an economic solution, which is to establish a new regional trading network,\*\* with the significant difference that it is established in economically backward areas rather than as before in economically more developed centres. Therefore, colonisation can be seen to be the result of the undermining of the structure of the commercial city state and the establishment of new trading networks.

The Phoenicians and Greeks have in common the expansion of trading networks into areas previously visited but not incorporated into the Eastern Mediterranean economic sphere. But, we can also see a significant difference between the structure of the Greek expansion in contrast to the Phoenician. Accepting the more critical conditions that must have undermined the economies of the more specialised trading city states in Greece, we see that the colonisation process represents a kind of

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\* In some cases certain elements of the population could be sent out, for example as mercenaries to Egypt.

\*\* This would involve some elements of the population in temporary - or even permanent - residence 'abroad'.

segmentation in which mother-cities reproduce themselves as social and cultural wholes in their daughter colonies. This in turn provided the conditions for a sense of autonomy and separate consciousness in the daughter colonies which acted as channels for discontent and escape from harsh conditions in the Aegean Greek cities.

These tendencies towards the establishment of new centres of the Greek way of life, containing a cross-section of all the institutions and social categories found in the mother cities, but associated with concepts of release from the pressures found in the Greek homeland, established the conditions for growing independence and self-reliance of the colonies. Their attachment to the mother cities was expressed in ideological, religious and symbolic terms\*. However initially economic ties were important and their function was to supply the mother cities with foodstuffs and other primary products, and probably slaves \*\* in return for manufactured goods. With the achievement of independent subsistence and manufacture of basic commodities there was an incentive for the colonies to establish their own colonies and have their own dependencies, which they in turn supplied with manufactured goods. There was an advantage, therefore, in breaking the monopolising relation with the mother city (whether Aegean or Magna Graecian) in order to be able to trade freely for greatest gain. The observed tendency towards the establishment of independence, whilst retaining their Greek identity through 'cultural ties,' which of course involved the acquisition of some Aegean Greek products (ie. continuing trade with any one or many Greek cities), was a feature of Greek expansion and colonisation.

See *Figure 5* for a model of Greek expansion.

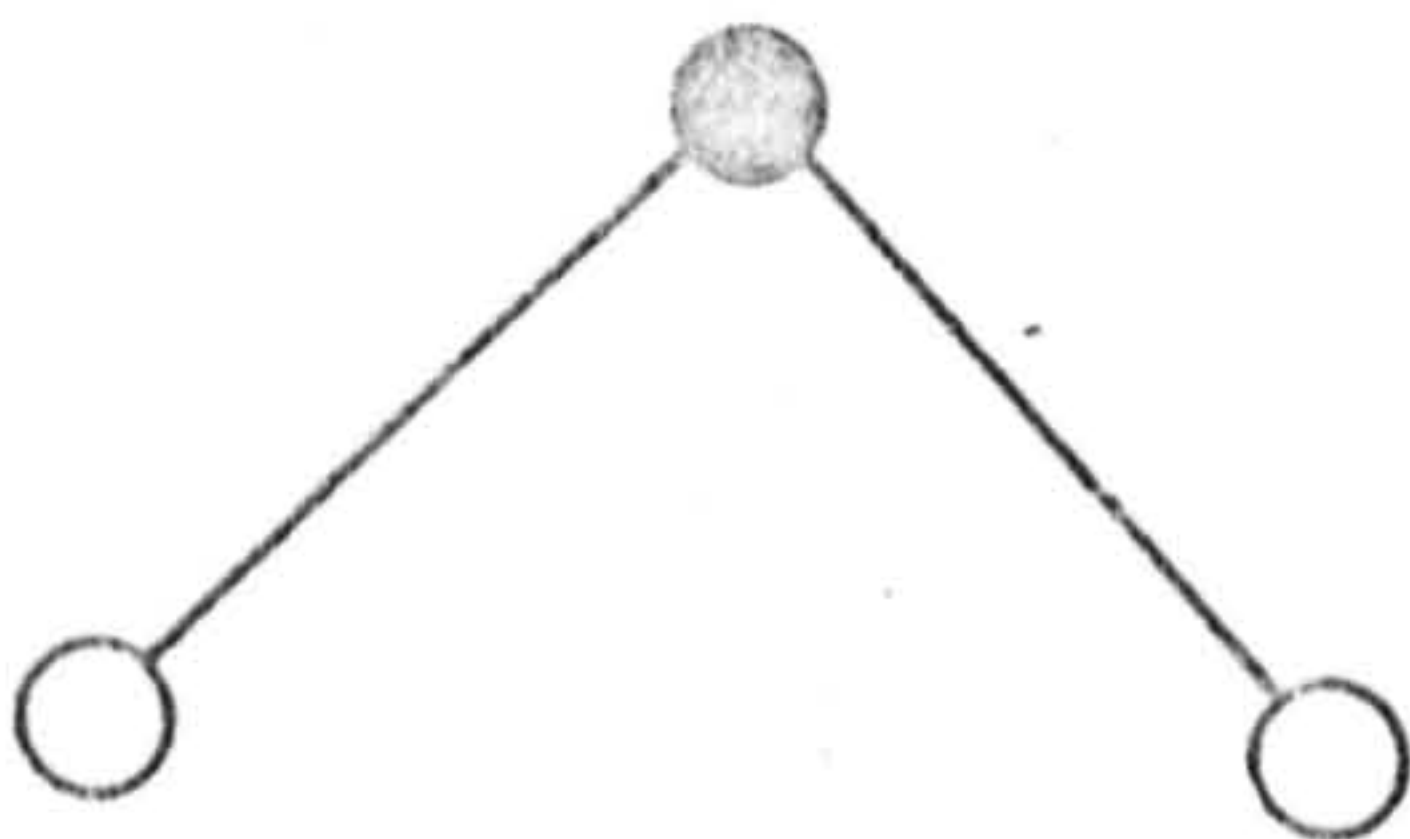
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\* See Graham 1964; Vallet 1963; and Humphreys (1966), who regards the religious ties of the colonies as a function of the colonists' 'attachment [not] to a particular ancestral shrine or even to a particular city, the metropolis, but by the desire to keep in touch with the centres of Hellenic life and religion' (from the author's English version).

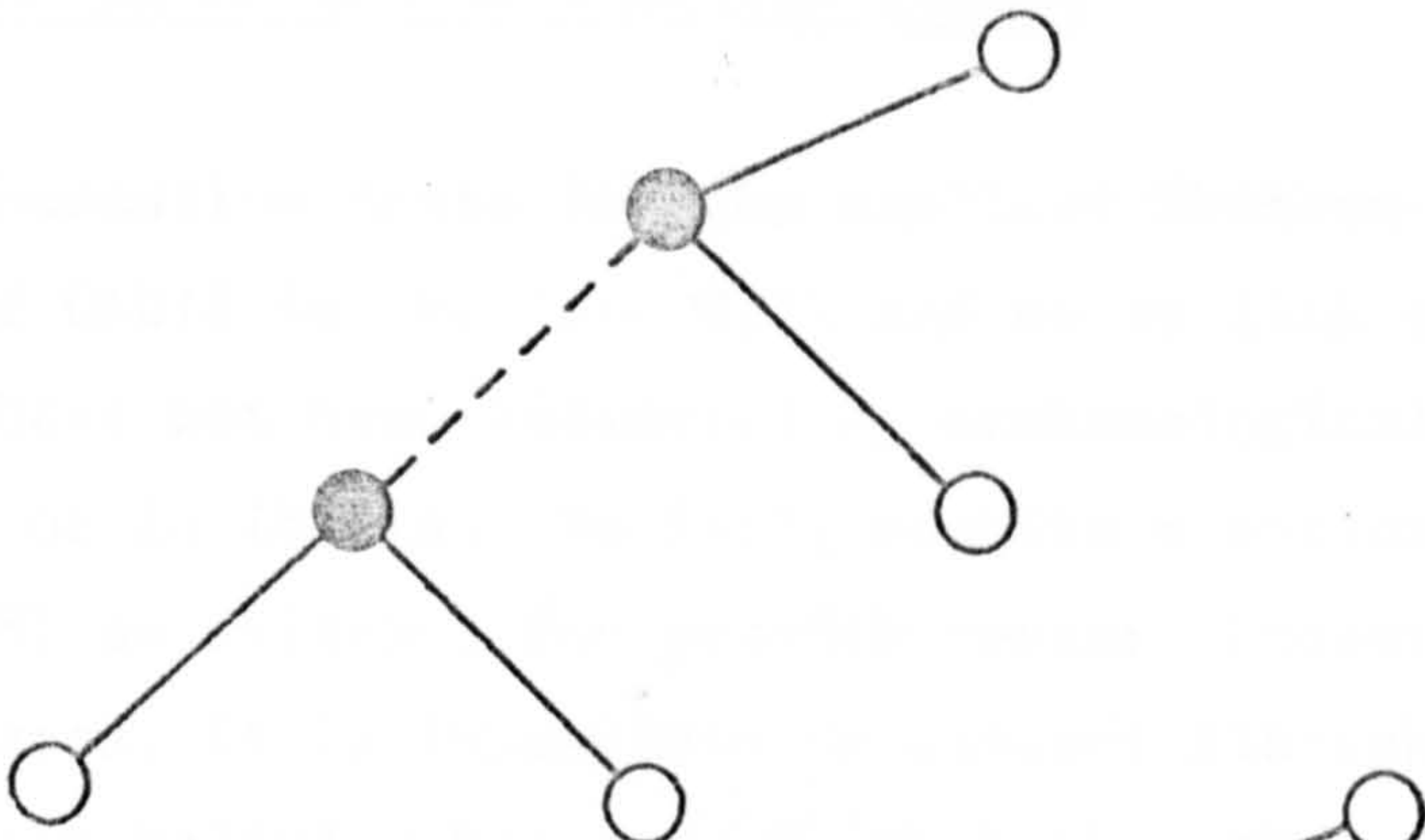
\*\* Humphreys 1965; Vallet and Villard 1961.



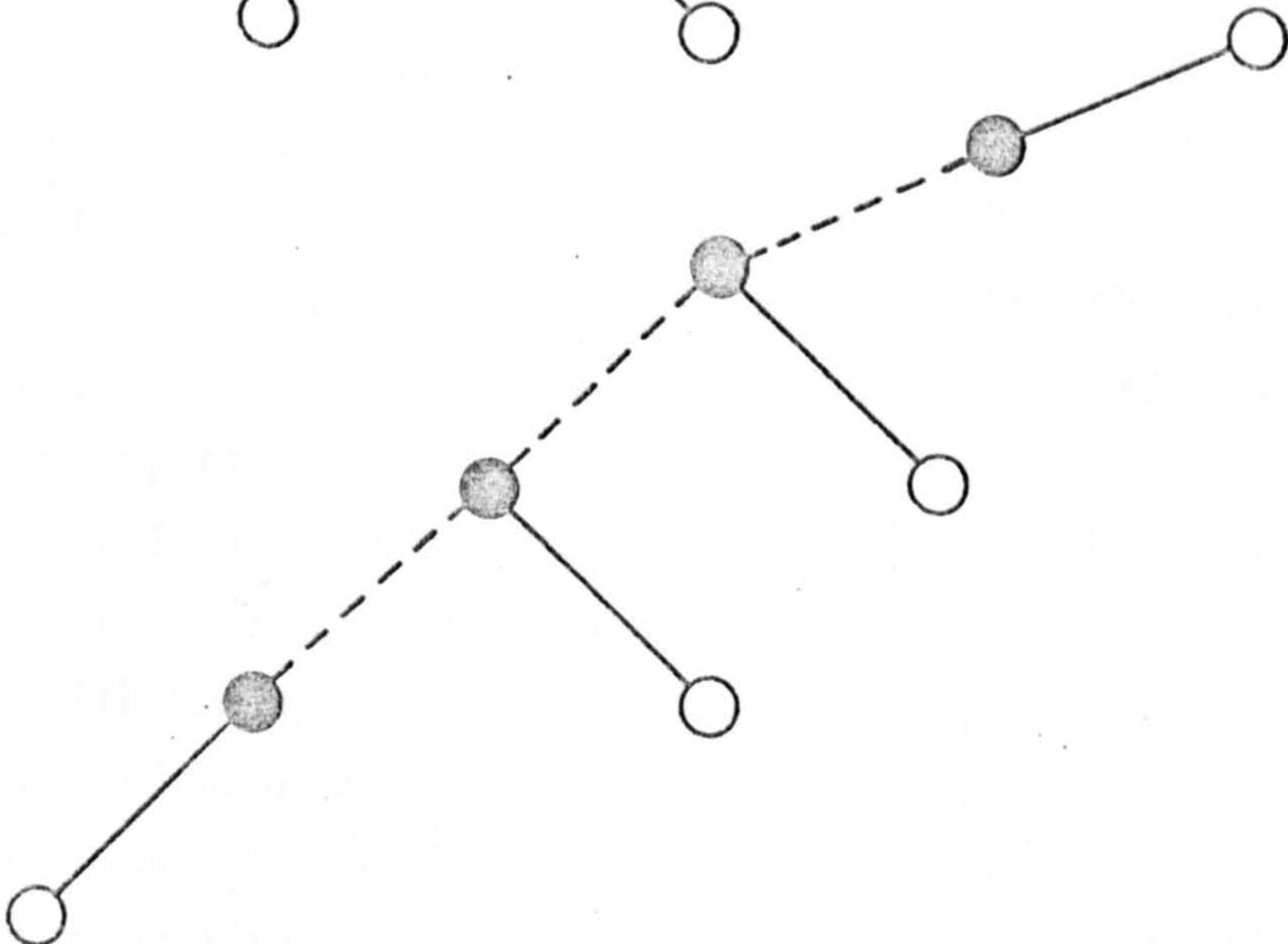
1st phase



2nd phase



3rd phase



mother city



daughter city



strong economic ties



independence

Figure 5: Model of Greek expansion.

PART IITHE IMPACT OF PHOENICIAN EXPANSION ON SOUTHERN IBERIA

The traditional foundation dates for the earliest Western Phoenician colonies, ie. UTICA and CADIZ in the late 12th and early 11th centuries (see eg. Harden 1948) have not been validated by archaeological research either in North Africa or in Iberia. In fact, despite a series of finds cited by Blázquez (1968) as evidence for pre-8th century Phoenician presence in the Cadiz area, it is impossible to support Albright (eg. 1941) and others in their belief - based on faith rather than fact - in the 11th century expansion into the Western Mediterranean. The first Phoenician establishments in Spain are now clearly dated to the late 8th century, as will be described below, which agrees with the evidence from the most westerly point of Phoenician presence, Mogador (Jodin 1966). We can, however, expect an earlier phase of exploration and the establishment of exchange relations with peoples of the West to have preceded the founding of Phoenician establishments, trading posts, production centres, staging posts, with their own burial grounds in southern Spain. In Part I A, the functioning of the Phoenician strategy to intensify the exploitation of local resources and stimulate the production of certain commodities, thereby linking up discrete economic or political spheres, was demonstrated with examples from the Eastern and Central Mediterranean. The incorporation of non-Phoenicians in typically Phoenician activities has been proposed as the source of labour and population required for the extensive 'Phoenician' settlement of the Central and Western Mediterranean; this is true of the later 'Punic' or Cathaginian expansion too (eg. Gsell 1929; Whittaker 1974).



A - The External Relations of the Iberian Metal-working Industries  
in the later Bronze Age

In order to demonstrate the organisation of Phoenician enterprise in Iberia and its impact on the indigenous population with which they came into contact, we must examine the pre-Phoenician external relations of Southern Iberia. This involves an appraisal of the inter-regional relations within and beyond the peninsula during the later part of the Bronze Age.

For a long time, Iberian Bronze Age studies have been dominated by the ideas of Bosch-Gimpera (eg. 1932b) and Santa Olalla (eg. 1946). The frameworks they presented were for peninsular, rather than regional, developments such as the 'Bronce Mediterráneo' and the 'Bronce Atlántico'. The transition from one to the other was regarded as a consequence of ethnic change, eg:

'Aparte de los círculos locales en que perdura al bronce II mediterráneo, se produce, en torno al 1200 hasta el 1000, en la Península Hispánica un cambio radical de cultura, mercados y finalmente, en cierto modo, de raza.'

(Santa Olalla 1946, 62)

The pre-occupation of Bosch-Gimpera, Santa Olalla, Almagro (eg. 1947-48, 1952, 1958), Maluquer (1945-46, 1963, 1970a), Beltrán (1961) and others with migrations of Central European populations - preferably 'Celtic' - into Iberia, was matched by a fascination with the Eastern Mediterranean, as exemplified in the works of Schulten (1971 - 1st ed. 1921; 1955), the Siret brothers (1877, and L. Siret 1907a, 76ff), Carriazo (eg. 1947), García y Bellido (eg. 1934, 1952, 1970) and many others. Migrations still dominate Bronze Age studies: eg. Maluquer (1970b) still advocates migrations into Iberia of 'Tumulus culture people' of Central Europe and a 'diaspora' of Urnfield populations (see also Almagro Gorbea 1971, 1974a, 1974b; Jordá et al 1972-73; Blanco et al 1969; Fernández Miranda 1975; and many other recent publications). In the same article in which he suggests that we 'put aside the notion of migrations or invasions', Maluquer (1970a) writes: 'The initial date for arrival of urnfields in Catalonia appears to be long

before the eighth century' (p.113) and then deals with the 'conquest of the Meseta'. Similarly Hawkes (1969) proposes a migration of Central European Urnfield people into Southwestern France, from where they set off for Galicia, due to shortage of land and rumours of metal riches in the Northwest of Iberia (eg. Figure 1, white arrows). Later, the

'Rumores de los primeros emigrantes, de lo que descubrieron cuando llegaron a la Península, de una España amplia, con partes ricas en metales y con la ventaja de una meseta escasamente poblada, al difundirse por Francia, encenderían la imaginación de todos los descontentos.'

The 'adventurers' took the sea route to Galicia,

'Avanzarían desde el mar, remontando los ríos y cruzándolos por tierra, Tajo, Guadiana, Guadalquivir, y mientras tanto, la meseta iba llenándose tras ellos mas lentamente, y al poco tiempo tendremos de ese modo conquistadores en la país de Tartessos. Quizá ya con un jefe, con un caudilla, para llamarse más tarde un Argantonio.'

(1969, 190)\*

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\* Many other examples of this type of interpretation could be quoted (eg. Schüle 1969a). Similarly, the futile drawing of vague parallels from the Near East to 'explain' what are often fairly common, widespread cultural traits could be demonstrated (eg. from Blázquez 1975). But, a discussion of migration theories and the value of extrapolation from later literary or linguistic evidence of the ethnic identities of pre-Roman Iberian populations cannot be undertaken within the scope of this thesis. However, the complexity of this type of analysis - if it is to succeed - and its limitations, have recently been shown by Ehret (1976).



1 The role of El Argar in the L.B.A. Mediterranean network and its relations within Iberia

The last phase of the 'Bronce Mediterráneo' was the El Argar culture, identified by the Siret brothers in the late 19th century in Southeastern Spain but subsequently applied by Bosch-Gimpera and others to the entire peninsula. Tarradell was the first to recognise the limited distribution area of the El Argar Culture within Southeastern Spain. Since then, the concepts of 'Bronce Mediterráneo' and 'Bronce Atlántico' have been abandoned and important regional studies undertaken to establish local sequences of Bronze Age developments (eg. Blance 1964, 1971; Tarradell 1962; Schubart 1975a). The main criticism that can be made of many of the recent regional studies is the neglect of the inter-regional relations which had been overemphasised in the earlier frameworks. Unfortunately, they are often still dominated by explanations in terms of migrations and invasions: eg. Savory (1968, eg. 216, 219) continues to believe in Celtic invasions as influencing, although no longer as the explanation of, the Northwestern bronze working tradition; Jordá et al (1972-73) see the Asturian tumulus cemeteries as the consequence of Central European Tumulus population movements that finally reached Northern Iberia from Northern Atlantic Europe; and Almagro Gorbea (1974a, 1974b) relates Iberian gold-work to specific - and not always apposite - examples in Atlantic and Central Europe thereby dating and 'explaining' in terms of itinerant smiths, associated with immigrants, the development of gold jewellery in Iberia; Maluquer (1970, 18) recognises 'un elemento germánico' in the VILLENA (Alicante) treasure.

The recognition of connections between Atlantic Iberia and the Biscayan and British Bronze Ages by Almagro (1940), Savory (1949), MacWhite (1951), Evans (1952) and Hawkes (1952) was important for two reasons: firstly, an Atlantic, or even Biscayan, network was acknowledged as a separate - if not independent - source of 'influence' on Iberian Bronze Age developments; secondly, by recognising an Atlantic repertoire of bronze materials, it became possible to identify specifically Iberian elements. Thus, Savory (1949) specified as 'distinctively Iberian types' the double-looped and flat-backed palstaves and located their production

within Northwestern Iberia, between the Minho and Tagus. Both he (1948, 1949) and MacWhite (1951, 64ff) recognised their connection with Western French palstaves rather than with Central European Middle Bronze Age types; they dated the palstave industry of the Northwest to an earlier phase of the Northwestern Bronze Age (MacWhite's Bronze III) than the sword finds which - on the basis of the HUELVA hoard - appeared to represent a Southwestern development.

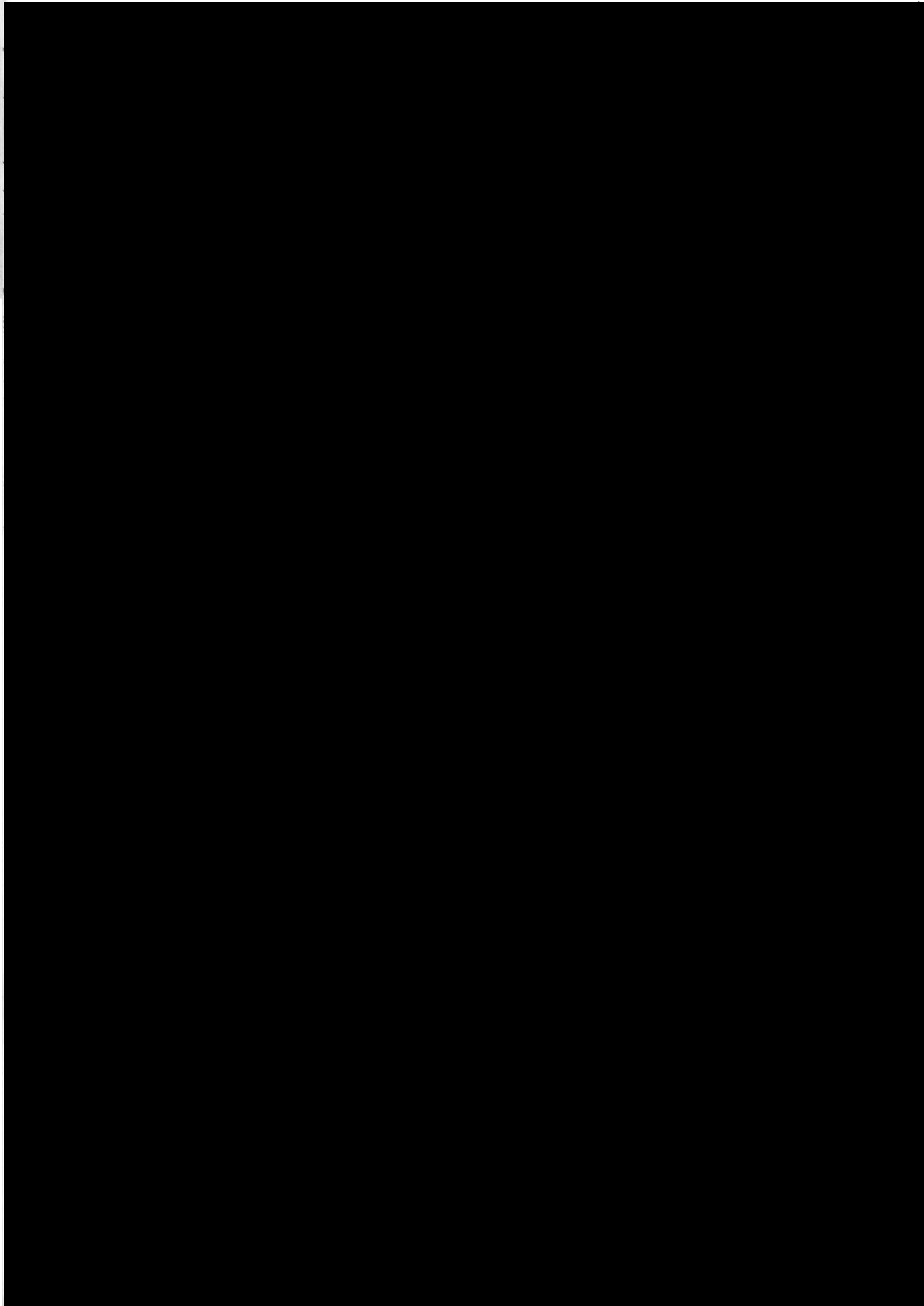
Our main interest here is the Late Bronze Age of Southwestern Iberia, and it is not possible to deal with the Northeastern and Central Spanish developments in this period. As a basis for understanding the southern Late Bronze Age we can start with an examination of Schubart's 'Southwestern' Bronze Age: the material has been published in great detail (Schubart 1971, 1974, 1975a, 1976) and by defining its external relations we can establish the regional organisation that preceded the Phoenician foundations in Southern Spain.

Figure 6 (Schubart 1976, Figure 11) shows the distribution of the 'Southwestern' Bronze Age, ie. in the Portuguese districts of Faro (Algarve), Beja and Southern Setubal (Baixo Alentejo), Southern Evora (Alto Alentejo) and the Northern and Central regions of Huelva province (Spain), and the El Argar, and 'Bronce Valenciano' cultures. The western end of the Sierra Morena (the Sierra de Aracena in Spain, and the Sierra do Caldeirão in Portugal) is part of the 'Southwest'; its main river systems are the Guadiana and Sado. The high density of finds corresponds with the fertile valleys, contrasting with the sparser distribution of the hilly and semi-arid regions of most of the interior (cf. Schubart 1975, 1-3, 221). The cultural area of the 'Southwest' is bordered by the major river valleys of the Tagus to the North, and Guadalquivir to the East; in which distinct sequences of Copper - Late Bronze Age developments are beginning to be recognised.

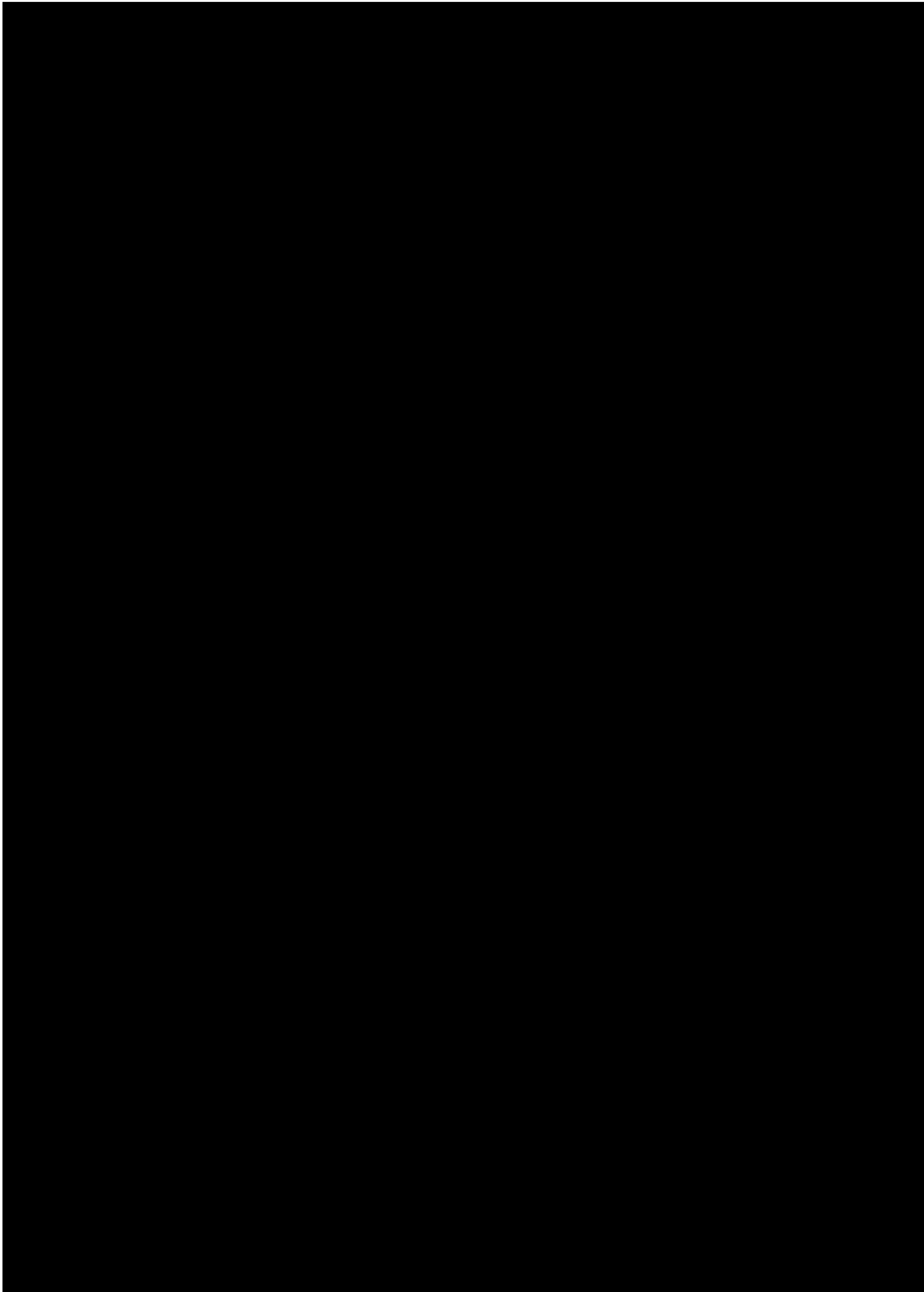
The 'Southwest' is renowned for its wealth in copper ores (cf. Allan 1970; Davies 1935, Ch.IV; Blance 1971, Karte 2; Schubart 1975a, Karte 35 - based on Nuevo Atlas de España, Madrid 1961, 131), see Figure 7 (copper and gold taken from Schubart Karte 35 and Blance Karte 3). It is significant,



**TEXT BOUND  
INTO  
THE SPINE**







therefore, that the only Beaker sherd (from a Palmela bowl, according to Schubart (1971b) known from the area comes from the site of ALGARES, Conc. Aljustrel (Baixo Alentejo), from which Domergue and Freire d'Andrade (1971, 102-3, Figures 9 and 10) conclude:

'... il ne fait pas de doute que l'existence d'un habitat campaniforme sur l'affleurement le plus important du gisement de cuivre d'Aljustrel est lié à l'exploitation des minerais de cuivre de métallurgie assez simple qui ont pu exister en cet endroit.'  
(p.109)

On the basis of analyses and some work on the pottery they suggest that

'... des populations de culture campaniforme appartenant au group maritime Tage-Sado sont allées explorer les gisements cuivreux de l'Alentejo.'  
(p.110)

The Copper Age of the 'Southwest' - known as the Ferradeira horizon - is dealt with by Schubart in a series of publications (1971b, 1975a, etc). It is in part contemporary with El Argar A, but in fact represents continuity with the local Copper Age and Early Bronze Age types. Connections with the Tagus area are particularly apparent in the case of the copper Palmela points (Schubart 1975a, 70-71).

On the basis of associations of pottery and metal types in graves, and horizontal stratigraphy as observed at ATALAIA, Conc. Ourique (Baixo Alentejo) (eg. Schubart 1964, 1965), Schubart has defined 2 phases of the 'Southwestern' Bronze Age (Schubart 1971a, Figure 17). Changes in grave form are related to differences in grave contents: the pottery shows continuity in technique and shapes from the Ferradeira horizon to the Late Bronze Age with some obvious exceptions, eg. the ribbed and grooved vessels (of Atalaia type) which are thought to be based on metal prototypes. Thus, the development of the pottery



is seen to be an internal feature of the 'Southwestern' Bronze Age: the same cannot be said of the metalwork.

There are very few metal finds from the graves, others are known from isolated finds, but their origins always lie beyond the 'Southwestern' cultural area.

We can therefore use the metalwork to establish the external relations of the 'Southwestern' Bronze Age Phase I. There is no real evidence for an indigenous bronze - or copper - industry in this area and it can be predicted that excavation of the settlement sites of this period will not produce significant evidence for bronze using or working.

About 50 flat axes are known from the area, of which 80% are thought to be bronze; the tin content of 3 specimens is given as 1.15%, 2.7% and 3.3% (Schubart 1975, 64) which does not constitute true bronze. The possible association of the flat axes with copper exploitation was noted by Estácio da Veiga, cited by Schubart (1975a, 64-5), on the basis of the two axes found at some depth in the MINA DA JULIANA (Beja) associated with bronze chisels and stone hammers (Taf.48, 373, 374).

The next most common type is the dagger blade. The daggers - unlike the axes\* - were found in graves and although they are derived from Blance's El Argar B types, they were made of copper (Schubart 1975a, 72ff). Other metal finds include: 2 copper halberds, possibly of Argar B 'Montejicar' derivation (pp.76-81); 2 knives, one of arsenical copper and one of bronze, are known from Phase I (p.90); from the

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\* Schubart suggests that the absence of axes in the 'Southwestern' Copper and Bronze Age graves, contrasting with their inclusion in the contemporary graves of the Southeast, is the consequence of a 'durchgehende Beigaben-Tradition' (1975a, 65) rather than, as suggested here, due to the scarcity of metal products in the 'Southwest'.

exceptional grave of BELMEQUE, Conc. Serpa (Baixa Alentejo) two daggers, one with gold overlay, and a knife with silver rivets are dated by the two-spouted ribbed vessel to Phase II (Taf.59). These rivets and 2 silver spirals are the only silver finds from the area; there are also 4 copper spirals, which have parallels in El Argar B graves (p.93). The few gold finds include the BELMEQUE dagger; 2 beads from ATALAIA System V, associated with glass beads; 2 golden armrings with rectangular sections, which have parallels in the Alcácer do Sal area, where a dagger with golden rivets was found; 3 tutuli from CASTAÑUELO, Aracena (Prov. Huelva) (Taf.54); and 2 armbands from EVORA with parallels both in the Northwest and in the VILLENA material (Soler García 1965), the date of which is much disputed.

The use of individual graves, both cists and flat graves, in the Bronze Age of the Southeast and Southwest contrasts with the practices in the Lower Tagus and Guadalquivir areas, where strong continuity with the Bell Beaker phase is recognised but where collective burial dominates (cf. Schubart 1973b, 43). But the special relationship of the 'Southwestern' Bronze Age Phase I is indicated by almost all of the metalwork:

'Die Spiralringe machen zusammen mit den Nietdolchklingen den Zusammenhang zwischen der Kultur der Bronzezeit im Südwesten der Iberischen Halbinsel und der El Argar-Kultur besonders deutlich, da zudem auch ähnliche Fundhäufungen in allen anderen Gebieten der Halbinsel fehlen.'

(Schubart 1975a, 94)

Thus, there is a 'special concentration' of Argaric metalwork in the 'Southwest' but the expansion of El Argar is not limited to this area, ie. in contrast to the restricted distribution of El Argar A material, Schubart notes that



'... die Charakterformen von El Argar B - es sei hier nur an die Dolche, Schwerter und Ringe erinnert - eine über diesen Raum hinausgehende allgemeinere Verbreitung auf der Iberischen Halbinsel gefunden haben.'

(1975a, 82)

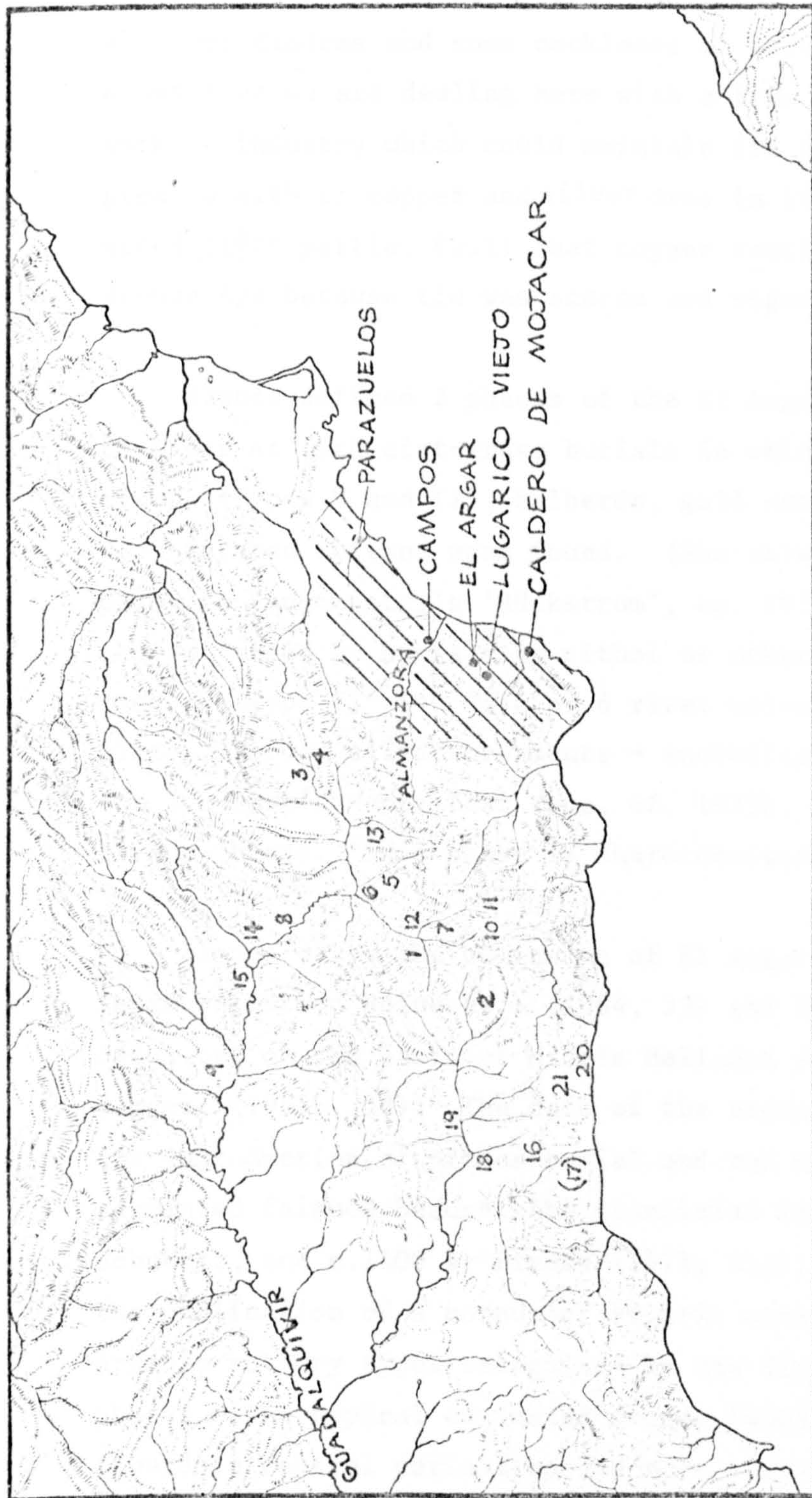
The characteristic combinations of material and the pithos burial of El Argar B are not found in the 'Southwest'. The main concentration of El Argar settlements and necropoli as recognised by the Siret brothers and later by Blance occurs along the Aguas, Anas and Almanzor rivers and the ramblas of Remonte and Ifre, on the Southern Levantine coast between Almería and Cartagena (cf. Sirets 1887 Livre 2, IIIème partie), Figure 8. In this primary area of Argaric settlement, sites of varying size and complexity were occupied, cf. EL ARGAR, ZAPATA, LUGARICO VIEJO, CABEZO DEL OFICIO and CAMPOS (Sirets 1887, Ch.II). The large defended settlements, like EL ARGAR, Antas, in the lower reaches of the rivers, could have been part of a hierarchical settlement pattern in which

'Es könnten zu einer stadtähnlichen Siedlung stets mehrere vorpostenartige Plätze gehören, die talab in der Regel eine direkte Weg- und Sichtverbindung mit dem Hauptplatz hatten.'

(Schubart 1973b, 42)

Virtually no advance has been made on the investigation of the settlements since the Sirets' work, but signs of metal-working were located by them within the settlements, eg. at EL ARGAR where crucibles and moulds (eg. for flat axes) were found together (Sirets 1887, IIIème partie, Plate 27) and at CAMPOS and PARAZUELOS where slag and ores were found (Ière partie). Some of these finds are illustrated by Carriazo (1947, Figure 581). Many metal finds came from within the settlements, eg. pins (or awls), daggers, axes, saws and even a silver band from EL ARGAR, chisels and arrow-heads with long tangs from LUGARICO VIEJO,





- Area of distribution of El Argar A and 'Bronce C'
- Sites representing expansion of El Argar B:
1. PURULLENA; 2. MONACHIL; 3. GALERA (CERRO DEL REAL);
  4. ORCE (CERRO DE LA VIRGEN); 5. GOR; 6. GORAFE;
  7. GUADIX; 8. QUESADA; 9. BAÑOS DE LA ENCINA;
  10. JEREZ DEL MARQUESADO; 11. ALDEIRE; 12. BEAS DE GUADIX;
  13. BAZA; 14. PEAL DE BECERRO; 15. UBEDA; 16. VENTAS DE ZAFARRAYA;
  17. RÍO DE VÉLEZ; 18. LOJA; 19. MONTEFRÍO;
  20. ALMUNECAR; 21. PANTANO LOS BERMEJALES.

Figure 8: The distribution of El Argar A and B, and 'Bronce C'.



Fuente Vermeja. Metal was also abundant in the graves: in the c.250 graves from EL ARGAR published by the Sirets there were c.650 pots and c.200 daggers, 50 axes, swords, halberds, pins, spiral rings, armrings, 4 silver diadems and some necklaces of metal beads. There can be no doubt that we are dealing here with a true arsenical copper/bronze working industry which could maintain its production on the basis of the great wealth of copper and silver ores in its hinterland. The Sirets noted (Ière partie, Ch.I) that copper continued to be used during the Bronze Age because tin was scarce and regarded true bronzes as imports.

Blance defined 2 phases of the El Argar Bronze Age (1964, 1971):  
 El Argar A: with cist-grave burials in which triangular daggers with 3-5 rivets (Types V and II), halberds, gold ornaments, wristguards and V-perforated buttons were found. (She relates certain elements of this phase to Sangmeister's 'Rückstrom', eg. 1971, 123.) El Argar B: characterised by burials in pithoi or other pots, accompanied by triangular daggers (Type I) with 2, 4 or 6 rivet holes in a more rectangular rivet plate, swords, silver ornaments - including diadems, a few halberds (of Schubart's Montejicar type, cf. 1975b, 80), and segmented bone and faience beads. This phase is characterised by 'Aegean' elements.

Blance dates the beginning of El Argar to 1700, on the basis of Southern German Reinecke A (1964, 33) and Schubart arrives at the same date, but on the basis of Middle Helladic parallels for the Argar A daggers (1973b, 56). The date of the transition to Argar B hinges on the introduction of pithos burial and the much disputed date of the segmented faience beads\*: the transition is now dated to 'c.1500' by Schubart, and c.1400 by Blance (1971, 153). Schubart, who is preparing the publication of a corpus of Argaric material, has tried to assign the Argaric pottery types recognised by the Sirets (1887, 135-6) to Blance's phases. The typical carinated shapes found in the graves show a tendency towards a central carination and more curved profile in Phase A and a high carination and more conical shape in Phase B (see figures 6 and 7 in Schubart 1975b); a possible confirmation in settlement material comes

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\* Discussed in Stone and Thomas 1956; Renfrew 1968; Harrison et al. 1974, and other publications

from CERRO DE LA VÍRGEN, ORCE (Almería) in levels IIIA and IIIB (see also Schubart 1975a, 134).

This tendency towards vessels with carinations on the upper part of the body is continued in the recently identified Late and Final B.A. phases in the Southeast, ie. Southeastern Bronze Age Phase C (eg. Schüle and Pellicer 1966, 33ff; Schubart 1975b, and others to be discussed below).

The Sirets (1887 Ière partie, Ch.I) commented on the bronze bracelets from CAMPOS, QUIRÉNIMA, CADERO DE MOJÁCAR, BARRANCO HONDO, which contained between 5.58 and 15.48% tin and which they therefore assumed to be imported, since no tin is found in the Argar area nor in its immediate hinterland. They also illustrated and remarked on the unusual pottery from LUGARICO VIEJO (IIIème partie). This material has now been brought together by Schubart and the grave finds from PARAZUELOS and the above sites termed the 'Quirénima type'; Late and Final B.A. settlement material from EL OFICIO, FUENTO ÁLAMO and LUGARICO VIEJO includes

'platos con la carena alto, a veces con un asa de listón horizontal, con doble taladro vertical; vasos decorados que recuerdan en su técnica la cerámica de Boquique, tanto en las líneas de punto y raya, como, sobre todo, en su decoración a modo de guirlandas.'

(1975b, 90)

We have seen, above, that El Argar B metal types are found in the 'Southwest', but Schubart insists that 'Es handelt sich bei der Südwest-Bronzezeit trotz verwandschaftlicher Züge doch um eine unabhängige Kultur, eben eine Schwesterkultur von El Argar.' (1975a, 135). Blance too believes in the development of a 'distinct local Bronze Age' in Southern Portugal and Huelva (1964, 139). There is no denying the cultural independence of the 'Southwest' but the evidence of the metalwork suggests that the 'Southwest' was dependent on El Argar B for its basic metal tools and weapons. This coincides with the inclusion of Southeastern Spain in the Western Mediterranean metal trade when the Argaric centre expanded inland and along the South coast, resulting in the establishment of some new



settlements and the incorporation of the indigenous inhabitants of other areas into the Argaric koine. The peripheral nature of the 'Southwestern' developments compared with those in the major centres in the Southeast can be recognised in:

- (a) the apparent absence of any indigenous metalworking tradition and/or types;
- (b) the reliance on Argaric imports for tools, weapons and ornaments; and even the possible derivation of the 'Southwestern' 'bottles' of Phase II from the vessels found in the Granada group of Argar B sites, viz. MONACHIL, Fase II, and PURULLENA, Earliest phase (cf. Arribas et al 1974, 138).

It can be suggested that the El Argar/'Southwestern' interaction was controlled by populations on the coast, particularly in the strategic areas at the mouths of the Guadiana and Sado. The concentration of exceptional finds in the Alcácer do Sal (Baixo Alentejo) area, ie. at the mouth of the Sado, suggests that the exploitation of the copper ores of the south-west, which began in the Copper Age and was clearly oriented towards the Tagus (cf. Schubart 1973c), continued to be channelled along the main river systems and controlled by the coastal populations. The concentration of flat axe finds in the Reguengos area, in the Alcácer hinterland, and the Serra de Monchique, in the Sines hinterland, supports the evidence from MINA DA JULIANA for their association with copper exploitation. They may therefore be an indication of the main centres of ore extraction in this period and their coastal outlets. It is possible to show that control by coastal populations of access to the produce or resources of the interior was a function of the Argaric-Mediterranean developments in this period. In the later Bronze Age, contemporary with the 'Southwestern' Phase II, the orientation was Atlantic, until the Phoenicians re-integrated Atlantic Iberia in a new Mediterranean trading system.

The Sado estuary area is not included in Schubart's 'Southwestern' Bronze Age, but he discusses and illustrates finds from the area (1975a): those corresponding with Phase I in the 'Southwest' are:

- (a) HOSPITAL, Conc. Alcácer do Sal: 2 dagger blades with 2 gold and 3 silver rivets: the former are unique, probably an indigenous element, the latter have parallels in the El Argar A material. (p.74, Taf.40, 432, 433)
- (b) VALE DE CARVALHO, Conc. Alcácer do Sal: an exceptional dagger, with Northwestern parallels, such as in the ROUFEIRO hoard (cf. Harbison 1967), is said to have been found with a carinated vessel. (p.73, Taf.41, 438)
- (c) ALCÁCER DO SAL: a flat axe of copper, with a thick butt and slightly expanded blade (Taf.50, 425).

Savory (1968, Map 68) illustrates the concentration of gold ornaments in the Sado area and Estremadura: he dates them to the 'Early and Middle Bronze Age', which is not entirely reliable, especially as he also dates the 'Alentejano' engraved slabs to the Early bronze Age (cf. p.211, Figure 70).

At this stage, it is worthwhile examining the Mediterranean trading system of the 15th, 14th and 13th centuries in order to be able to contrast it with the later Mediterranean incorporation of this area following the establishment of the Atlantic regional system in the c.10th to 8th centuries.

The initial distribution of El Argar was limited to the Southeastern coastal areas, and the absence of Argar A material in the 'Southwest' has been noted.

But during 'Southwestern' Bronze Age Phase I, the metal finds from the graves and some isolated finds clearly indicate a connection with El Argar B. The beginning of El Argar B in the 15th century, with its obvious Central Mediterranean and possible Aegean connections (Evans 1958, 65ff; Blance 1964, 1971; Daniel and Evans 1967, 53; Schubart 1973b) must be linked with the expansion of the Mycenaean trading network into the Central Mediterranean (see above, Part I A, section 2). The repercussions of Mycenaean presence in the Central Mediterranean has been particularly noticeable in Sardinia and Southeastern Spain.



In Sardinia, copper ox-hide ingots, weighing up to 300 kg - have been found near the SERRA ILIXI and ASSEMINI nuraghi and are dated by various authorities to the 14th, 13th and 12th centuries (Guido 1963, 110; Daniel and Evans 1967, 29). The beginning of the Archaic Nuraghic period in c.1400 is generally accepted, together with the idea of copper being imported in the form of ingots. At many nuraghi of the early period there is evidence for 'foundries' for casting weapons and tools from local copper, which is known to have been worked by the 8th century - and probably earlier too - in the Barbagia area (Guido 1963, 151-2). Guido claims the bronzework of the period before c.1000 (ie. the beginning of the full Nuraghic period) shows 'very few outside influences' but admits that the Sardinian metalworkers must have had access either directly or indirectly to a source of tin (Guido 1963, 156). The external relations of the Sardinian bronze working tradition may not have 'influenced' the style of bronzes in this period, but must have been relevant to the expanding scale of production. Guido believes that the source of tin was possibly Spain or France; with the exception of Tuscany there were no other Mediterranean sources of tin (see Muhly 1973, Ch.IV, with extensive bibliography).

The stimulation of the bronze working industries - associated with silver and gold working too - in the Western Mediterranean must be envisaged as a consequence of the expansion of the Eastern Mediterranean Late Bronze Age, particularly within the context of the Mycenaeans' increasing need for new sources of copper and tin from the 16th century. Bass has suggested that Syrians were working both Cypriot and Sardinian copper ores, hence the ox-hide ingots in Sardinia (1967, 52-83). But Muhly offers a different interpretation of the Sardinian ingots, which he believes were destined for use in the Aegean; and that Sardinian copper was supplementing Cypriot supplies:

'It is about the same distance from Greece to Sardinia as it is from Greece to Cyprus. There is, however, no Mycenaean pottery in Sardinia. This suggests that the western trade represents a different type of operation (to that in Cyprus). It must, in fact, be part of the amber trade through Europe which brought to the Aegean not only the amber of the Baltic Sea, but also the

tin of Cornwall and perhaps even the gold of Ireland, along with the copper of Sardinia. This trade was not in the hands of the Mycenaeans who went no further west than the island of Sicily, but may have been transacted on the tiny island of Lipari, which was perhaps an emporium in the Late Bronze Age.'

(1973, 185)

The role of El Argar in this trading system has not been fully appreciated by Muhly; it is suggested here that tin, gold and silver, as well as copper, were supplied by El Argar, and it is only in that context that the phenomenal expansion of El Argar B can be explained (See Figure 8).

The expansion of El Argar B took place in 2 directions: further inland from the immediate hinterland of the original centre; and along the coast, especially along the southern coast. Blance notes that flat axes, Type I daggers and silver armrings were found in graves at QUESADA and RÍO DE GOR - where an arrow-head known so far only from the settlement of EL ARGAR was also found; another Type I dagger came from MONTEFRÍO; swords from EL ZALABÍ, ATARFE, PAGO DEL SAPO, MONTEJÍCAR (1971, 135ff). A general summary of the expansion of the Argar B phase is given by Schubart (1975a): its extent is shown on his Karte 37; Karte 36 shows the Argar A distribution but not density of finds. He refers to the interest in copper resources, especially in the Baños de la Encina and La Carolina areas, as the reason for the western and northern expansion, and gives many references to published and much unpublished material:

'Baños de la Encina kann als der weiteste Vorstoss der El Argar-Kultur nach dem Nordwesten gelten, hängt aber über einem breiten Keil von El Argar-Plätzen mit dem Kerngebiet zusammen; dazu gehören etwas Baza, Cúllar de Baza und Orce die Gräberfelder von Peal de Becerro und von Ubeda.

Die weiter südlich, direkt westlich des El Argar-Kerngebietes gelegene Granadiner Gruppe der El Argar-Kultur dehnt sich nach Westen hin bis zu einer Linie aus, die durch Funde aus dem Tal des Río de Vélez, von Ventas de Zafarraya, von Loja und von Montefrío bezeichnet wird. Für diese Gruppe



sind Gräberfelder wie die von Guadix (Abb.17), von Monachil und von Almuñécar charakteristisch. Hier liegen auch bei Gor und Gorafe im Osten der Granadiner Gruppe, und am Pantano Los Bermejales im Westen der Granadiner Gruppe späte Megalithgräber mit reichen Funden der El Argar-Kultur. Manche der Megalithgräber, vor allem in der Gruppe Gor-Gorafe sind sehr wahrscheinlich erst in der El Argar-Zeit errichtet.'

(p.136)

We can see, therefore, that the strategy of El Argar B expansion was to gain access to more resources in the interior and assure their control over access to the hinterland and coastal trade. This can only be explained by increasing external demands since there is no evidence, other than within the Argaric distribution, of increasing use or production of metalwork. The incorporation of existing populations in ore-rich areas is known, for example, from the Galera area, where levels IIIa and IIIb of CERRO DE LA VÍRGEN, ORCE, corresponding with Argar A and B, show that Argaric elements were being adopted by the indigenous inhabitants of the settlement. The CUESTA DEL NEGRO, PURULLENA (Prov. Granada) was first inhabited by people using Argar B material. Among the burials within the settlement, no.2 of Estrato 1/Norte contained characteristic Argaric pottery, a dagger (Blance's Type I) and a necklace of clay, stone and copper beads, copper spirals and a segmented bone bead (Molina González and Pareja López 1975, 34, Figures 23-26). In the second phase of Argaric occupation - in Estrato II/Sur - a stone mould was found: it consisted of 3 pieces and was designed for the casting of 2 flat axes of Argaric type. In the same level a loom weight was found (Molina and Pareja 1975, 36-7, Figures 47-51). The CERRO DE LA ENCINA, MONACHIL (Prov. Granada) appears to have been tentatively established during Argar B Fase I beginning in c.1300, and followed then by a more extensive Argar B occupation, Fase IIa-b.

In Granada, Molina and Pareja distinguish two types of relations with the Argaric Bronze Age: ie. the 'poblaciones indígenas eneolíticas' are either radically transformed, cf. ORCE, or they merely absorb some of the technological changes, as occurred among the 'more traditional' dolmenic populations of Gor-Garafe, Montefrío and Bermejales (1975,53-4).

In addition to incorporating - to different degrees - the inhabitants of the provinces of Granada, Jaén and to some extent Málaga, the Argaric centres appear to have sent out population to settle in the ore-rich Guadix and Marquesado areas, where a settlement appears to have been established contemporary (ie. c.1300) with that of PURULLENA at CERRO DEL CULANTRILLO, Gorafe (García Sánchez 1963). Neither have pre-Argaric occupation nor any indications of 'pervivencias eneolíticas' in the Argaric settlement and burial material (Molina and Pareja 1975, 54). Surface finds and preliminary soundings have revealed Argaric material at a number of sites in this vicinity: ALQUIFE, JEREZ DEL MARQUESADO, ALDEIRE, ALCUDIA, GUADIX, BEAS DE GUADIX, BENALÚA DE GUADIX, BECERRA, GOR, GARAFE (cf. García Sánchez 1963; Molina and Pareja 1975, 54). The existence of a natural pass from the Guadix depression through Marquesado, across the Fiñana pass to the Almería river and along it to the coast is noted by Molina and Pareja.

At CERRO DE LA ENCINA, MONACHIL, the important Argaric settlement (Fase IIa-b) with massive stone defences, is dated to the 12th and 11th centuries, ie. corresponding with the later phase of Argaric occupation at PURULLENA, which began earlier in Argar B, c.1400/1300. The Argaric occupation of both sites is thought to end at c.1000. The earlier Argaric settlement at PURULLENA corresponds with the ORCE material which appears to be contemporary with MONACHIL Fase I and the initial PURULLENA Argaric settlements, but ended before the main Argaric B settlement of these sites. An important parallel for both the construction and material of MONACHIL Fase IIa is found at CABEZO REDONDO, VILLENA (Alicante), in the 12th and 11th century Argaric B settlement: Arribas et al (1974, 137ff) believe that the famous treasure of gold vessels etc found near the CABEZO REDONDO provides a prototype for the 'bottles' found in both PURULLENA and MONACHIL which, in turn, are thought to be the origin of the 'Southwestern' Phase II ribbed bottles. An analysis of the faunal material from MONACHIL by Angela von den Driesch (in Arribas et al 1974, 151ff) has revealed a unique dominance of horse bones, especially in Fase IIb, in which 855 bones represent 29% of the minimum number of individual animals; this contrasts with 58 bones in Fase IIa, and 25 in Fase III (Cuadro I, p.153). Although horses appear



to have been a source of meat, their predominance would imply their use as beasts of burden too.

The sites nearer the south coast, cited by Schubart (1975a, 136), do not appear from the brief references to the finds from them to be Argaric establishments. The material is probably found within indigenous contexts and would represent the incorporation of coastal populations as intermediaries in the transport of ores or simple castings, such as axes, from the hinterland to the coast, from where the metal would have been transported by sea to the main Argaric centres and their ultimate destinations.

We can draw the following implications from the evidence of El Argar B developments: Firstly, its inception and hence subsequent evolution was a consequence of involvement in the Western/Central Mediterranean trading network. An indication of the context of Argar B developments is given by the Central Mediterranean - and perhaps ultimately Aegean - derivation of many aspects of Argaric material and burial practices (cf. Evans 1958; Blance 1971; Daniel and Evans 1967, 53; Schubart 1973b); and the evidence for Mycenaean presence in the Central Mediterranean has been discussed in Part I A, section 2. The wealth of the El Argar metalworking industries and some of the burial places associated with Argaric centres are the consequences of external relations which created the internal conditions for 'urban' developments, greater consumption of wealth, and cultural borrowings, which are therefore the expressions of the flourishing of this metal extracting and working centre. The orientation of the subsequent Argar B expansion towards resource areas, on the one hand, indicates an increasing need for access to and expansion of the scale of the exploitation of metal ores; the expansion towards the south coast, on the other hand, would indicate that it was necessary to control access to these resources from the coast and that maritime transport was the basis of Argaric access to and distribution of metals.

There should, therefore, be technical evidence for the greater production of raw metals or easily cast objects. Davies (1935, 95), quoting Siret's analyses of certain EL ARGAR silver rivets and the

FUENTE ALAMO diadem, believes that Argaric silver was extracted from oxide ores and was not native silver as used in the Copper Age. But the results of recent analyses of Argaric silver by Dr P. Craddock indicate the continued use of native silver by Argaric metalworkers.\* There is certainly evidence from the Southeast for the increased use of silver, eg. Maluquer (1970) notes that from the EL ARGAR necropolis alone, the silver finds weighed 9 kg. There is very little evidence for advances in casting techniques in copper, eg. PURULLENA mould for flat axes, and most shaping appears to be post-casting work. Some unusually fine castings are known, cf. Carriazo (1947, figures 608, 609, 661) and Harbison (1967, Figure 1 no.2); swords with gold plated hilts are illustrated by Carriazo (1947, Figure 609). Analyses of the Argaric types found in the south revealed the use of arsenical copper (Schubart 1975a, 62ff), and the Sirets (1887) noted the rarity of bronze in the Southeastern metalwork. This has been confirmed by Craddock's analyses of Argaric material in the British Museum which are seen to be arsenical copper alloys (Craddock 1977)\*\*. All this implies the role of El Argar in the Western Mediterranean as a supplier of raw metals, or roughly cast objects, rather than finished products. This role is confirmed by the nature of the expansion of El Argar in the period of its intensive trading role, ie. further into the southeastern hinterland, and by the absence of any Argaric metalwork beyond Iberia.

Since the proceeds of this extensive metallurgical activity are not seen to be consumed within Iberia, its development must be the consequence of an economic demand coming from outside: the settlement pattern shows the concern for coastal dominance and control over resources which one would not expect if the exploitation, production, distribution and consumption of the metalwork was a closed - peninsular - system. We have discussed the evidence for Argar B/'Southwestern' connections, let us now examine the nature of these connections:

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\* I should like to thank him for this information.

\*\* According to L. Siret, the lack of tin was the reason for the 'caractère primitif des armes et outils car le cuivre est beaucoup plus difficile à travailler que le bronze' (1907, 77). Monteagudo (1951) claimed that 600/1400 Argaric objects analysed proved to be bronze, with c.9.17% tin.



The 'Southwest' was one of the resource areas tapped by the expansion of Argar B. In the 'Southwest', the supply of copper ores was probably secured by relations with the indigenous populations, or the coastal intermediaries, which involved the provision of metal products, mainly weapons and ornaments, to be conspicuously consumed as grave goods. As noted by Schubart (1976, 233):

'Die Kupfergebiete des Südwesten der Iberischen Halbinsel müssen auf Bevölkerungsgruppen, denen an Kupfer gewinnung lag, eine grosse Anziehungskraft ausgeübt haben.'

The use of maritime and river routes is indicated by the concentration of metal finds in the 'Southwest', eg. Schubart (1975a) Karte 27 showing the dagger distribution; and the importance of the Sado population as an intermediary in this trade - which may have been Tagus oriented since the Ferradeira horizon - has been proposed.

Since no characteristic Argaric finds are known from the Central Mediterranean, one must assume that worked items were largely for local use, ie. in Argaric and Argaric related areas, whilst external demands were satisfied by the supply of raw materials or rough castings which were subsequently smelted down, possibly in Sardinia to produce ingots weighing up to 300 kg, whose form - but not necessarily content - were Aegean. A later stage of the Mediterranean trade associated with increasing demands for tin, can be the reason for the Argaric connection with the Northwest, which has been recognised by Harbison (1967) and Eiroa (1973-74), and which contrasts with the complete absence of Argaric material in Catalonia (eg. Blance 1971). Harbison notes that

'Northern Portugal and Galicia stand alone among all the "Atlantic" regions of Europe in being directly influenced by Mediterranean cultures ... certain bronze (?) weapons and implements which are connected with [El Argar] have come to light there. Particularly noteworthy in this context are swords and daggers.'

(1967, 100)

And Eiroa notes of the Northwest (in Bronze I) that

'... supervivencias eneolíticas las seguimos encontrando hasta los tiempos del Bronce Proto-Atlántico, coexistiendo con ciertas influencias argáricas y otras procedentes de Europa Occidental...'

(1973-74, 64-5)

Thus it is possible to suggest that the metal-working tradition of this Northwestern area was related to, but not initiated by, the expansion of the Argaric centres in the 14th and 13th centuries as has been clearly recognisable as far as ALCÁCER DO SAL. The obvious basis of Argaric interest in the Northwest would have been the tin resources. It is significant that following the contraction of El Argar in the final phase of the Southeastern Bronze Age, the Northwestern bronze industries develop independently of the Mediterranean centres, but as part of an 'Atlantic' bronze working tradition that will be described below.

It is proposed, therefore, that the Argaric centres were involved in the Western Mediterranean trading sphere, providing Iberian copper, probably tin, gold and silver. This Western Mediterranean trade in metal was, according to Muhly, oriented towards the island of Lipari, the

'... free port for the Western trade, the Mycenaeans bringing their industrial products to Lipari, there to exchange them for the raw materials, the metals, and the amber of the west.'

(1973, 280)

This aspect of Mediterranean integration must be examined within the context of his thesis that during the 16th and 15th centuries the main source of Aegean tin was Cornwall and that it reached the Aegean by an overland route up the Rhine and through continental Europe to the Adriatic, associated with the trade in amber; or from the western coast of France along the Garonne to the Mediterranean, associated with trade in faience (1973, 275ff). He also disputes, on the basis of the absence of evidence, the generally held view that the Mycenaeans' initial venture



into the Central Mediterranean was in search of metals, and suggests instead that '... this expansion is part of the developing trade in amber in the sixteenth century' (p.282). Furthermore,

'The total absence of Mycenaean pottery in the far west, in contrast to the western distribution of Greek pottery in the sixth century B.C., indicates the character of Bronze Age trade in the western Mediterranean, a trade in expensive materials and objects conducted overland through a series of middlemen.'

(p.279)

The Mycenaeans' role in the Western Mediterranean metal trade is still not clear but there is evidence from the CAP D'AGDE shipwreck, from near Béziers, off the Southeastern French coast, which carried a cargo of 'about 300 bars of copper and bronze, 80 axes of various kinds, some 50 decorated bracelets, arrows, spears and javelins' (Daniel and Evans 1967, 42, with references to Arnal's publication and to a possible date of between 1300 and 1000; Muhly 1973, 279-82). This 'hoard' or cargo can only be understood within the context of a regional trading system which was organised to supply individual participants in the system, but usually dominated by and stimulated to expand by a single external demand, which in the mid 1st millenium was probably the Aegean bronze-working centres. Muhly recognises that this phase of Eastern Mediterranean involvement in the West was structurally different from that of the 8th and 7th centuries. This is important. By the time trading interest in the West was resumed by new urban centres in the Near East and Aegean, a substantially different regional configuration presented itself in Iberia: its evolution will be described here.

Following the disruption of the Western Mediterranean trading network, undoubtedly connected with the general crisis in the Mediterranean during the 12th century, the dominance of El Argar beyond the confines of its original Southeastern centre was broken and its external relations were more local. Some of the original settlements and cemeteries continued to be used and a Late or Final Bronze Age phase was restricted to the 'zona de expansión de la cultura más antigua de El Argar' (Schubart 1975b,

90). The Late Bronze Age in Southern Spain was first identified by the excavators of the CERRO DEL REAL, GALERA (Almería). Pellicer and Schüle were the first to limit the Atlantic orientation of the L.B.A. to the Southwest and present a picture of a '... bronce III de Andalucía oriental ... con fuertes raíces en el bronce II y raigambre eminentemente mediterránea' (1966, 33) that preceded the period of Phoenician and Greek contacts. In terms of pottery,

'... lo característico del bronce III serán ciertas formas en alta carena, con carena acusada, con borde recto saliente, con ónfalo en la base, con ciertos perfiles en S y en cuanto a los tratamientos con una técnica depurada en el espatulada, en el bruñido y sobre todo en la nueva modalidad del reticulado bruñido.'

(1966, 34)

This corresponded with the introduction of a different house type, ie. oval plan and with the use of mud-brick in construction. Certain of the Sirets' Argaric settlements are now known to have continued to be used during the Late Bronze Age, eg. EL OFICIO, FUENTO ALAMO, LUGARICO VIEJO (cf. Sirets 1887, III<sup>ème</sup> partie; Schubart 1975b), also the cemeteries of PARAZUELOS, CAMPOS, CALDERO DE MOJACAR, BARRANCO HONDO, and QUIRÉNIMA. But this phase is now better known in Eastern Andalusia from the excavations at MONACHIL and PURULLENA\*.

At MONACHIL, the material associated with the mud-brick houses of Fase III include 'Boquique' (stab and drag) and excised decorated sherds (cf. Maluquer 1956). The occurrence of these Meseta decorative elements had been observed, although not described as such by the Sirets, noted too by Santa Olalla (1946b) at CAMPELLO (Alicante) and FUENSANTA (Murcia). Schubart has recently emphasised these aspects of the Southeastern Bronze Age Phase C (1975b).

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\* A site with similar material, known so far only from surface finds, has been located by Schubart at CABA ZUELOS, Prov. Jaén (1975a, 149, note 786).



Molina and Pareja note that Meseta influenced pottery has been found at a number of sites: SALOBREÑA (Granada), LA FUENSANTA (Murcia), CIERRO DE SANTA CATALINA (Murcia), CABEZO REDONDO, VILLENA (Alicante); LA ISLETA DE CAMPELLO (Alicante) and CARMONA (Sevilla), Level V (see Molina and Pareja 1975, 55 for references). At the CUESTA DEL NEGRO, PURULLENA, the second phase of occupation is contemporary with but unlike those cited above in that the quantity of Boquique and excised ware is far greater, the constructions are different: in all, the excavators see 'una extraordinaria semejanza entre cualquier yacimiento del tipo Cogotas I y los niveles superiores del poblado que hemos excavado' (Molina and Pareja 1975, 54). They date the beginning of the Meseta-dominated L.B.A. at PURULLENA to the 10th or early 9th century, following a short period of abandonment of the site. They summarise this Eastern Andalusian Late Bronze Age evidence, as follows:

'La mayor parte de los yacimientos que acabamos de enumerar son estaciones puramente indígena que han tenido contactos con las poblaciones de la Meseta, detectados arqueológicamente en unos pocos fragmentos decorados, que contrastan con el conjunto de los materiales en cada una de las estaciones. Sin embargo, éste no es el caso del poblado de la Cuesta del Negro, auténtico avanzillada en Andalucía Oriental de la cultura del Bronce Final de la Meseta.'

(p.55)

They then propose as the motive of this Mesetan southward penetration the practice of transhumance.\*

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\* The material presented by Molina and Pareja is of great value, but their interpretation is less acceptable. Firstly, the density of population and the scale of stockbreeding on the Meseta in the L.B.A. are unknown. Secondly, even during the 15th and 16th centuries A.D., when 4-5 million animals were involved in transhumance, the main routes or 'cañadas', led from winter to summer pasture situated on highlands on the Meseta itself (cf. Vilá Valentí 1968, 247-8, Fig.25). Thirdly, transhumance practices do not result in the establishment of large permanent settlements, as obviously existed at PURULLENA. The transhumance 'explanation' has, yet again, been misused thereby confusing and concealing the importance of these recent excavations in Granada.

The Meseta connection with the Southeast is seen to begin after the disruption of the Argar B dominance of Southern and possibly North-western ore sources, and control over the distribution of raw materials and a few manufactured products. There is some evidence for Argaric involvement in the Meseta bronze working centres in the North, viz. in LAS COGOTAS (Ávila), SANCHORREJA and EL BERRUECO (Salamanca), viz. the 'classic' Meseta sites, where Maluquer (1950, 138-140) has recognised Argaric flat bladed daggers and swords of bronze in a 'Middle Bronze Age' context, ie. preceding the period of Atlantic influenced bronzework. More evidence of this sort can be expected from the southern Meseta sites mentioned by Molina and Pareja in the Manzanares, Jarama and Henares areas. The contraction of the Argaric centre and its restricted role in bronze production and distribution would have undermined the functioning of other peninsular bronze using and working centres, one of which appears to have been established on the northern Meseta, which had probably relied on Argaric distribution and even extraction of metals. The appearance of Meseta elements in the post-Argaric period in Granada and Sevilla in addition to the contact with the Southeast, would indicate an attempt by the Meseta centres to either re-establish contact with the late Argaric centres or the inhabitants of ore-rich areas to stimulate the renewed exploitation of the metal ores and revive the flows of raw metals from their original sources.

This interpretation of the Meseta elements in Southern Spain should be regarded as a working hypothesis which can and should be tested. We should not forget Carriazo and Raddatz's observation that the Meseta wares, especially of general 'Boquique' types, were not adequately studied and that regional sub-groupings within the general category could be expected (1961, 98).

In the recently excavated L.B.A. level of LOS SALADARES, Oriheula (Alicante), Arteaga and Serna (1973, 1974, 1975) describe the dominant fine wares as burnished, carinated bowls, some decorated with incised lines; the coarse ware - mainly globular vessels - also has incised or finger-impressed cordon decoration, some have semi-circular lugs (eg. Arteaga and Serna 1974, 110-1, Abb.2 a-i). The excavators note that on



the basis of surface collection, there were other L.B.A. sites on low hills in the coastal zones: these contrast with Argaric and 'Bronze Valenciano' settlements which were on higher hills inland. The relation between this late L.B.A. and the preceding phase of settlement in this area is not yet clear, but an extension of the settlement pattern into the coastal zone in this period should be related to the same situation that stimulated relations between the Meseta populations and the Southeast.

In Southwestern Iberia, the Late Bronze Age is recognised as distinct developments in 3 areas: the lower Guadalquivir valley and coastal zone; the 'Southwest'; and the lower reaches of the Tagus valley and the Estremadura-Sado coastal zone. (Their distribution is shown on Figure 10 (Schubart 1975a, Figure 38).) Schubart was the first to distinguish the Tagus and Guadalquivir groups of pattern burnished L.B.A. wares (Schubart and Garrido 1967; Schubart 1971a). See also del Amo (1973, 1975).

The Tagus pattern burnished ware resembles in the forms of the pots those of Schubart's 'Southwestern' Phase II. The characteristic pattern burnish, consisting of triangles, oblique lines, bands or stripes, is found on the exterior of open or closed shapes. Most finds come from the Tagus and Sado estuary areas (cf. Savory 1968, Figure 83) but some finds are found further inland along the Tagus: at MONTE DE SÃO MARTINHO, Conc. Castelo Branco (Beira Baixa); and CUEVA DE BOQUIQUE, Plasencia (Prov. Cáceres) (Schubart 1975a, 287).\* The only Tagus-pattern burnished pottery found within the 'Southwest' comes from the MANGANCHE settlement to the north of Aljustrel, ie. near to where the Palmela bowl sherd was found (eg. Schubart 1975a, 138 and 287). Domergue and Freire d'Andrade noted that c.45 pattern burnished sherds

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\* A characteristic Tagus type of burnished bowl, with shoulder carination, is represented by a sherd from ATALAIA, tumulus VZ (Schubart 1975a, 45, 147 and Figure 1): although this form is quite common in the L.B.A. of southern Iberia, Schubart cites parallels from Almeria and on the basis of this evidence proposes 'überregionale Zusammenhänge' between the L.B.A. populations in the southwest and southeast.

were found in the MANGANCHE sondages, mainly from carinated bowls on which - with only one exception - the decoration was always on the exterior (1971, 111ff, Figures 11 and 12). The closest parallels are recognised in the material from LAPA DO FUMO, Conc. Sesimbra (Estremadura) and the CASTRO DE RATINHO, Conc. Moura (Baixo Alentejo). The former represents the Tagus group; the latter an 'intermediate group' located between the Tagus and Guadalquivir groups and with pattern burnish of both types or of 'intermediate' type. This 'intermediate' group is located in the interior between the Tagus and Guadiana and is probably more common than would appear at present to the Guadiana valley settlements of which so few have been investigated. (In the Moura area alone, surface finds from 9 castros are cited by Fragoso de Lima (1960) - most are probably of L.B.A. and Iron Age date.) Pattern burnished sherds have been found in the castros of RATINHOS and AZOUGADA, Conc. Moura (Baixo Alentejo); SEGOVIA, Conc. Campo Maior (Alto Alentejo); and towards the coast, in the castro of GIRALDO, Conc. Evora (Alto Alentejo); (See Schubart's Karte 38 - Nos. 21, 23, 24, ... 20) and ALCÁCER DO SAL, Conc. Alcácer do Sal (Baixo Alentejo). (A few dubious finds from the 'Southwestern' area and CERRO SALOMÓN, Río Tinto (Prov. Huelva) are noted by Pingel (1975) and listed by Schubart 1975a, 288.) The two pattern burnished sherds were found at SEGOVIA together with other characteristic highly burnished, carinated and dimple based L.B.A. material. The deposits in which they were found clearly represented material used in levelling operations in this area of the site before the major occupation and fortification began. Figure 9 shows some of this material.\*

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\* All the pieces here are hand-made fine ware, highly burnished originally, although in some cases the sherds are very worn, confirming the stratigraphic observation of their secondary deposition.

1. body sherd (A I, level 8, no.195); 2. 16cm diameter rim (A I, level 6, no.181); 3. rim sherd of unknown diameter (A I, level 6, no.182); 4. 14cm diameter rim (A I, level 8, no.193); 5. 10cm diameter rim (A I, level 8, no.194); 6. 28cm diameter rim (A I, level 6, no.180); 7. 24cm diameter rim (A I, level 8, no.191); 8. 28cm diameter rim (A I, level 8, no.190); 9. 26cm diameter rim (A I, level 6, no.179); 10. rim, unknown diameter (A NW, level 8, no.364); 11. 22cm diameter rim (A I, level 8, no.192), broad lug, just below rim; 12. body sherd with pattern burnish on both interior and exterior faces (A I, level 8, no.294); 13. body sherd with pattern burnish on interior, of general Guadalquivir type (A I, level 7, no.204).

I should like to thank Prof. J. D. Evans for permission to use this information from the 1971 excavation at SEGOVIA.



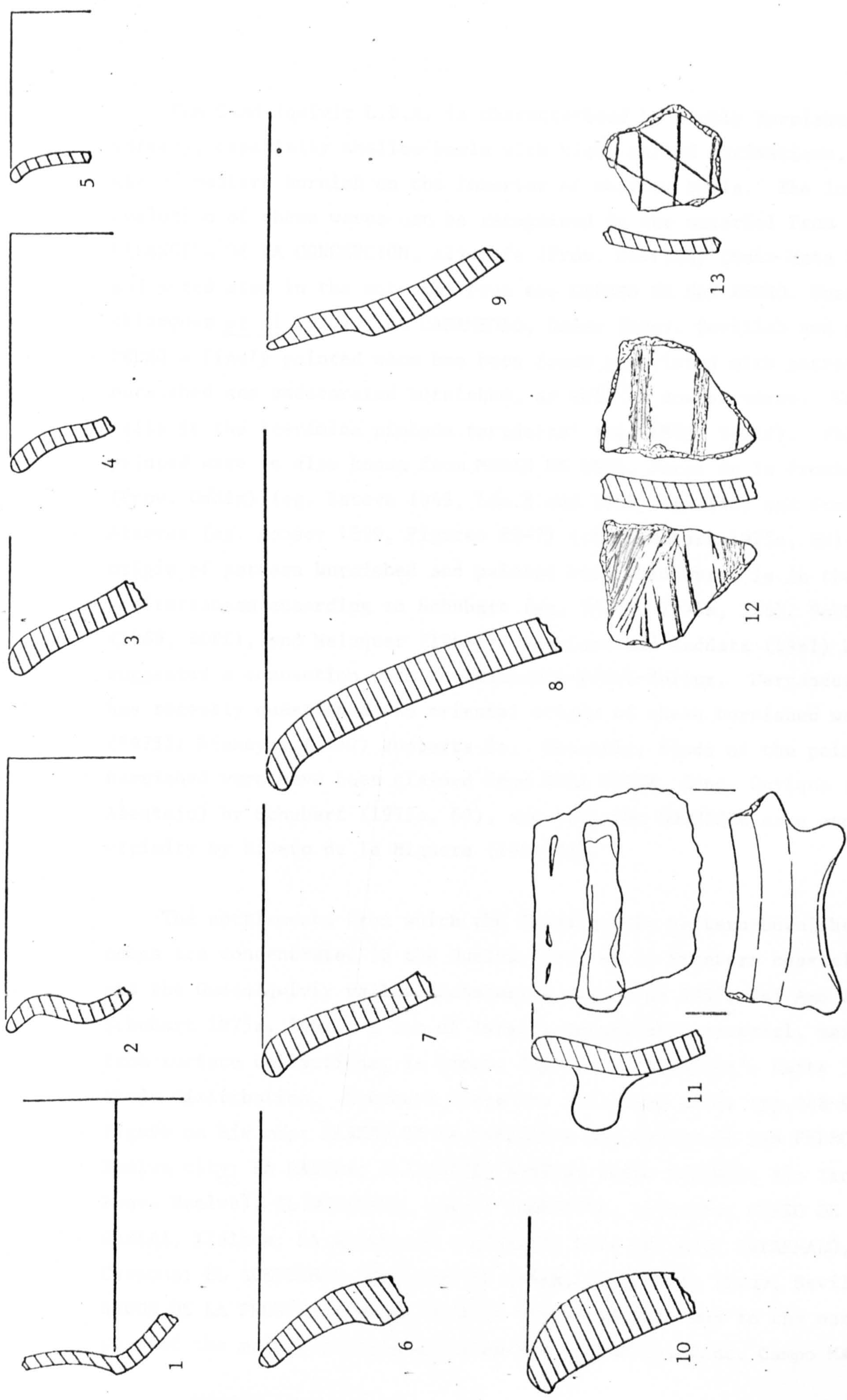


Figure 9: SEGOVIA, Campo Maior (Alto Alentejo):  
Late Bronze Age material.

0 10 cm



The Guadalquivir L.B.A. is characterised by highly burnished pottery, especially shallow bowls with high, marked carinations, and use of pattern burnish on the interior of shallow bowls. The local evolution of these wares can be recognised in the material from VALENCINA DE LA CONCEPCIÓN, Aljarafe (Prov. Sevilla) (Ruiz Mata 1975) and noted also in the material from the CABEZO DE SAN PEDRO, Huelva (Blazquez et al 1970). At CARAMBOLO, Camas (Prov. Sevilla) and SAN PEDRO a finely painted ware has been found associated with pattern burnished and undecorated burnished, as well as coarse wares. Carriazo calls it the 'cerámica pintada tartésica' (eg. 1973, 542ff). This painted ware is also known from MESAS DE ASTA, Jerez de la Frontera (Prov. Cádiz) (eg. Esteve 1945, Lám.X and 1969, Lám.III) and from the Alcores (eg. Bonsor 1899, Figures 83-7) (cf. Schubart 1975a, 60). The origin of pattern burnished and painted burnished wares is in the Eastern Mediterranean according to Schubart (eg. 1971a, 1975a, 144), Schüle (1969, 40ff), and Maluquer (1963b): Carriazo and Raddatz (1961) had even suggested a connection with the Hunsrück-Eifel-Kultur. Fernández Miranda has recently questioned the oriental origin of these burnished wares (1975); Niemeyer (1972) supports it. Recently, finds of the painted burnished ware have been claimed from NORA VELHA, Conc. Ourique (Baixo Alentejo) by Schubart (1975a, 60), and from the BOQUIQUE cave and/or its vicinity by Rivero de la Higuera (1972-73).

The settlements from which the Guadalquivir pattern-burnished ware comes are concentrated in the Huelva-Jerez de la Frontera coastal zone and the Guadalquivir valley (Schubart and Garrido 1967; del Amo 1973; Schubart 1975a, 140). A lot of largely unpublished material, mainly from surface collections, is known: *Figure 10* (Schubart's Karte 38) shows their distribution. Schubart lists the following sites (pp.288-9) that figure on his map: CABEZO DE LA ESPERANZA and CABEZO DE SAN PEDRO, Huelva city; LA RABIDA; ALJARAQUE; NIEBLA; CERRO SALOMÓN, Río Tinto (Prov. Huelva); EL CARAMBOLO, Camas; VALENCINA, Aljarafe; CERRO DE LA CABEZA, Itálica; LA ALGABA; EL MACARENO; LORA DEL RÍO; ENTREMALO, Carmona; EL ACEBUCHAL, Carmona; EL CASAR, El Coronil (Prov. Sevilla); ARCOS DE LA FRONTERA; MESAS DE ASTA (Prov. Cádiz); and to the north and west of the main Western Andalusian area: SEGOVIA, Conc. Campo Maior



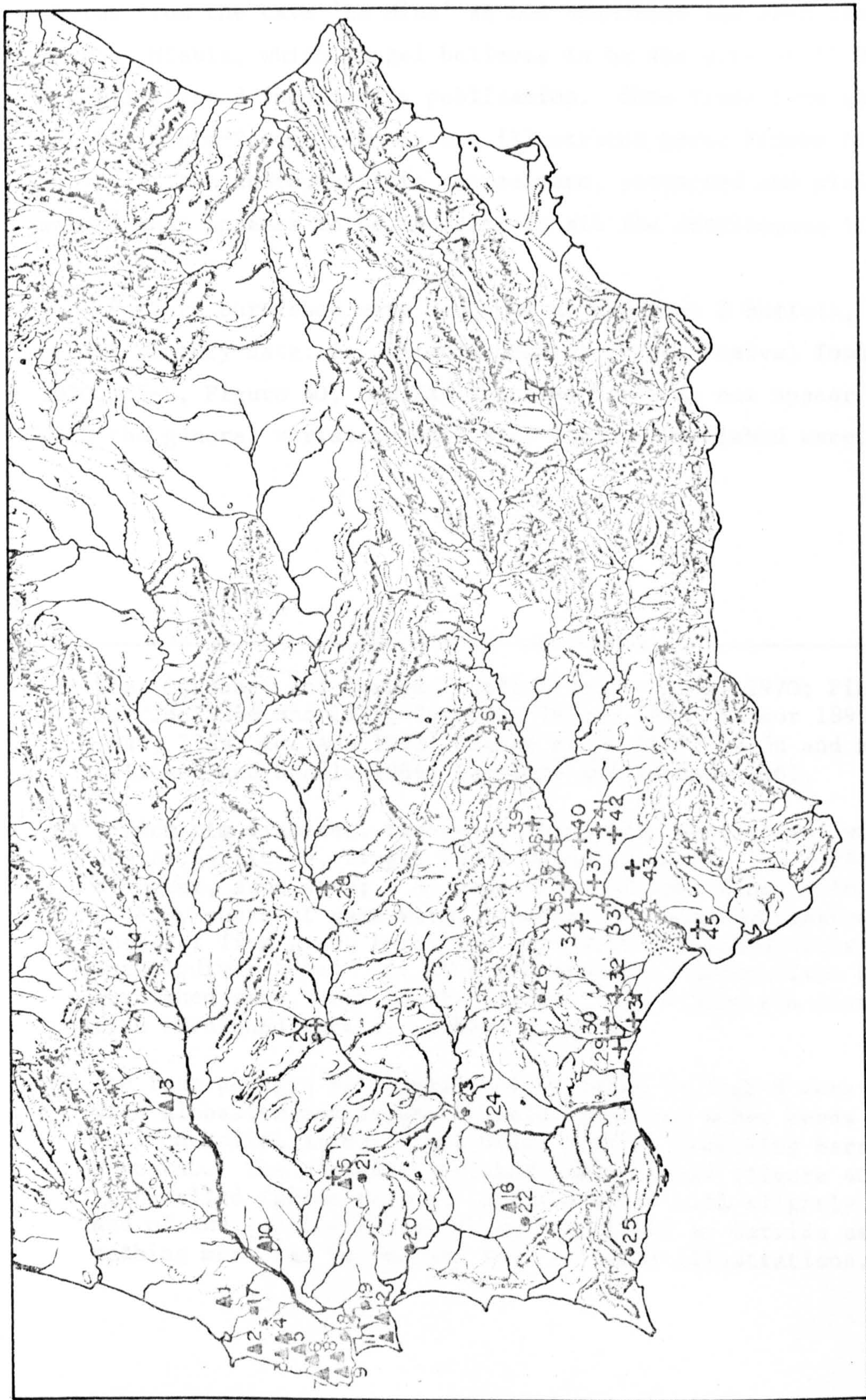


Figure 10: Distribution of pattern burnished wares  
(Schubart 1975a, Karte 38).

TYPE

Tagus

Guadalquivir

Indefinite



(Alto Alentejo) and MEDELLÍN (Prov. Badajoz); and in Eastern Andalusia: LA COLINA DE LOS QUEMADOS, Córdoba (Prov. Córdoba) and CERRO DEL REAL, Galera (Prov. Granada).\*

Pingel (1975a) and Garrido and Orta (1975) have enlarged upon the original publications by Droop (1925, 1926). A few pattern burnished sherds from the cave 'La Mina' at LOS BERMJALES and from the Eastern part of Niebla, which Pingel believes to be the site of EL DESEMBARCADERO are illustrated in Pingel's publication. Some finds from the Museum of the Rio Tinto-Patino company are illustrated here: *Figure 11*: they represent the characteristic coarse ware, patterned and plain burnished ware\*\* that appears to be abundant in all the settlements listed above.

Pattern burnished ware is known so far from 2 burials, both probably of 7th century date: ie. LA JOYA, Huelva (Prov. Huelva) Tomb 9 (Garrido 1970, 55-6, Figure 40, Lam.XXVI): these bowls do not appear to conform with the general variation of L.B.A. pattern burnished ware.\*\*\*

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\* See: Schubart and Garrido 1967; Blázquez et al 1970; Pingel 1975a; Garrido 1968 and 1975; Carriazo 1970a, 1973; Bonsor 1899; Esteve 1942, 1945, 1969; del Amo 1973; Blanco et al 1969; Luzón and Ruiz Mata 1973; Pellicer and Schüle 1966; Carriazo and Raddatz 1961.

\*\* 1. 29cm rim diameter, irregular, hand-made grey-brown, with large quartz particles, finger impressions on neck; 2. c.28cm rim diameter, same ware; 3. body sherd of same ware, with incisions; 4. body sherd of same ware, broader incisions/impressions; 5. body sherd of fine grey, burnished ware with burnished decoration of Guadalquivir type; 6. 38cm rim diameter, brown-black highly burnished ware, with quartz filler; 7. c.32cm rim diameter, same fine burnished ware as numbers 5 and 6.

\*\*\* The four pattern burnished vessels found in Tomb 9 were associated with alabaster and bronze vessels, gold and amber beads of a necklace, an iron knife, amphorae and other pottery including barniz rojo, and a scarab. The pattern burnished bowls appear (figure 40, 1-2) to be thin-walled (given as 2mm!) shallow bowls with slightly thickened rim and of indeterminate burnishing: described by Garrido as 'muy tenue'; nothing more can be learned from the poor illustrations.



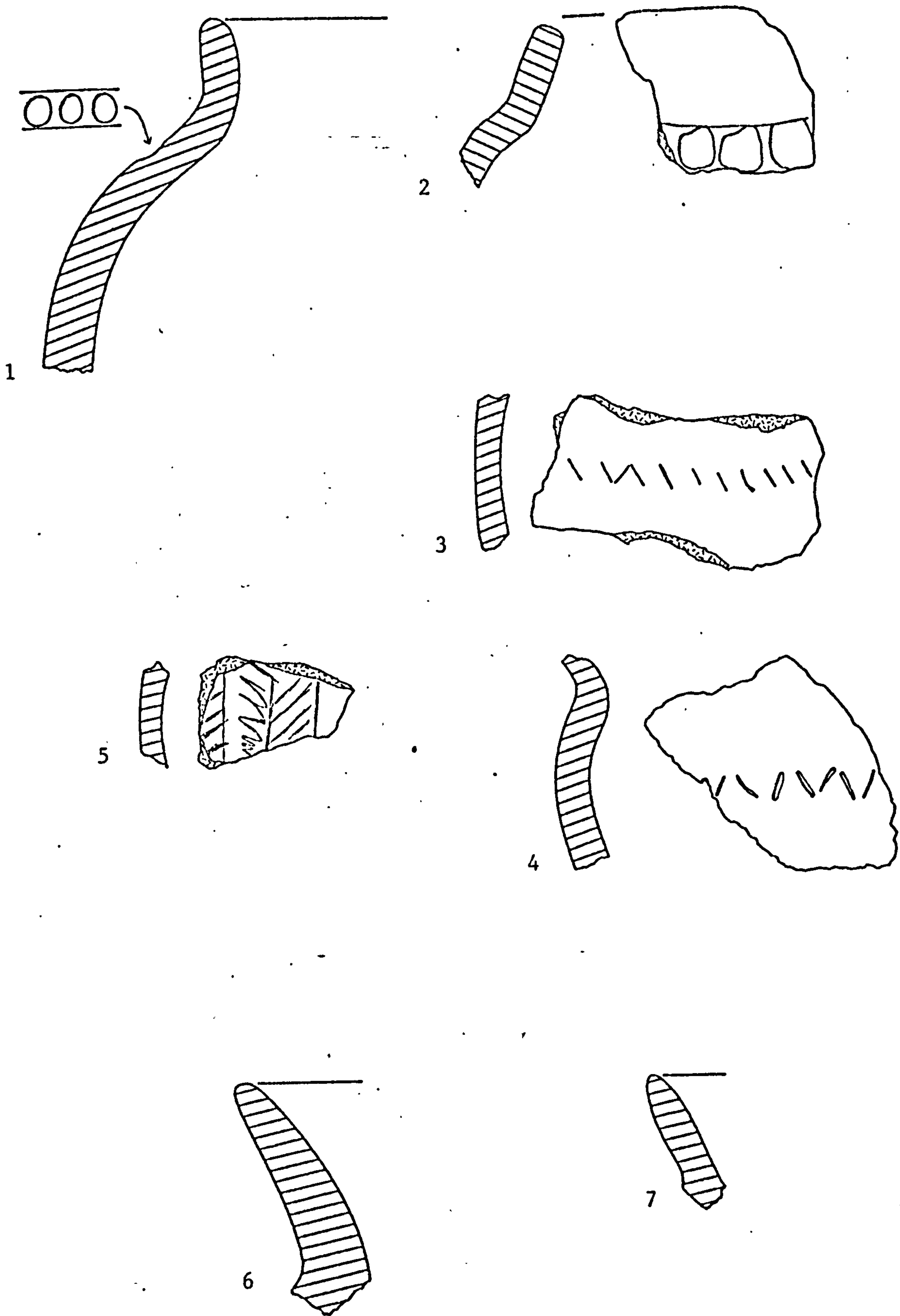


Figure 11: RÍO TINTO MUSEUM:  
Late Bronze Age and Early Iron Age material.

At SETEFILLA, Lora del Río (Prov. Sevilla) Aubet has recently excavated secondary burials in the Tumulus A (originally investigated by Bonsor and Paris) and has found, according to Schubart, 'Glättmuster-verzierte Keramik, die z.T. vom einfachen Schema der Guadalquivir Ware abweicht' (1975a, 144). Thus, the burial evidence is not of great use for dating the Guadalquivir pattern burnished wares of the L.B.A.; instead the material excavated - with very varied degrees of precision - in settlements is dated mainly by association with or precedence to characteristic wares of the Phoenician 'colonial' horizon.

The dating of the pattern burnished sherds (two) in CERRO DEL REAL, GALERA, level VIII (Pellicer and Schüle 1966, 21, Figure 14.14; or level IX/VIII and VII, according to Sánchez Meseguer 1969) are given a terminus ante quem by the red slip plate in Level IV: this plate, with a 4cm broad rim, is dated to the first half of the 7th century by parallels in TOSCANOS, Vélez Málaga (Prov. Málaga) (Niemeyer and Schubart 1964, 82ff; Schubart 1975a, 136ff).

Finds of pattern burnished wares from EL CARAMBOLO were associated with the painted burnished ware in a level preceding the general (but not the specific) context of the 7th century treasure (Carriazo 1970, 43ff; 1973, 542ff, 559ff; Blázquez et al 1970, 15; Kukahn and Blanco 1959, 38, etc).

At CARMONA, Carriazo and Raddatz carried out an excavation on the exposed periphery of the modern town and found pattern burnished wares associated with red slip ware in level 4, above level 5 with 'Boquique' wares (1961).

The most significant findings for the dating of the beginning of the L.B.A. come from the CABEZO DE SAN PEDRO, Huelva, where the first level containing pattern burnished wares was given a terminus ante quem of the 1st half of the 8th century by the Phoenician plates in a later level with pattern burnished material (Blázquez et al 1970).\*

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\* Unfortunately it must be pointed out that the SAN PEDRO 'excavations' involved collection of material from exposed deposits and the reliability of the levels distinguished, it would appear, on the basis of the sorting of material, must be questioned.



The conclusion reached by Schubart, and generally accepted by his colleagues working in Granada and Huelva, is that

'Die Glättmuster-verzierte Ware ... gehörte also in die 1. Hälfte des 8. und in das 7., wenn nicht sogar in das 10. Jh. v. Chr., und lebt andererseits zusammen mit Drehscheibenware noch bis in das 7. Jh. v. Chr. fort ...'

(Schubart 1975a, 142)

The Eastern Andalusian sequence is best known from the COLINA DE LOS QUEMADOS, Córdoba (Prov, Córdoba) which has an initial phase of pattern burnish using occupation, followed by what the excavators have carefully described as an 'infiltración' of people using coarse ware, with characteristic cord applications, incisions etc, generally associated with Phoenician wares, and which slowly replaces the pattern burnished wares and the general cultural content of the L.B.A. (Blanco et al 1969; Luzón and Ruiz Mata 1973). The occurrence of finger-impressed cordon decorated and other coarse wares in the Huelva area, within the city, at Río Tinto etc, has been interpreted by Blázquez et al (1970) in similar terms: in fact the arrival of Western European people of Indo-European language has even been recognised in the material of 'Nivel 5' at SAN PEDRO!

With the exception of SAN PEDRO, where smelted metal fragments, including silver, are said to come from 'Niveles 5a and 5b', ie. in the pre-Phoenician contact 'level'; there is no evidence for metal working or using within the settlements - nor for that matter from burials which presumably were still in megalithic tombs or cists.\* There is therefore no evidence for an indigenous bronze industry in the Southwestern/ Guadalquivir area before the beginning of Phoenician activities in this area (cf. Fernández Miranda 1975).

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\* The different distributions of cist graves, in hilly areas, and settlements in coastal or riverine situations have led del Amo to suggest that the evidence represents 'dos mundos cronológicamente diferentes' (1973, 376).

2 The incorporation of Western Iberia into the Atlantic L.B.A.  
regional system

The situation in Schubart's 'Southwestern' Bronze Age Phase II appears to be somewhat different and has to be viewed within the general context of Atlantic Bronze Age developments and in terms of its specific relations with the Northwestern Iberian and Central Portuguese bronze-working centres.

The emergence of a bronze-working centre in the Northwest, probably contemporary with Argar B in the South and with the 'Southwestern' Bronze Age Phase I, has been noted, with particular reference to Harbison's work on the E.B.A. Mediterranean and Atlantic connections of the Northwest. Harbison (1967, 1968) identified 3 types of axes: the Cibrales type, associated in the ROUFEIRO hoard (Nocela da Pena, Sarreaus (Prov. Orense)) with Argaric and Central Portuguese types, preceded the Bujões and Barcelos axes; one of the latter was found associated with a palstave. Tanged daggers and Palmela points probably continued to be used during this early period of bronze-working in the Northwest; certain Argaric imports are known, eg. the swords (cf. Harbison 1967, Figure 1) which include one of the superior Argaric castings, ie. the sword from FORCAS (Prov. Orense). López Cuevillas has emphasised the connections between Galicia and the Atlantic seaboard of Western and Northern Europe, which began in the Copper Age (eg. 1953). Harbison describes the beginning of metallurgy in Galicia and northern Portugal in the late Beaker period:

'It seems to have been set on its feet by influences coming from the area of the El Argar culture and the south and centre of Portugal, as López Cuevillas realized, while the influence from further north along the Atlantic seaboard possibly begins at a later stage, continues into the Middle Bronze Age and is felt even more strongly with the onset of the "Bronce Atlántico".'  
[Late Bronze Age]  
(1967, 116-17)



The finds of narrow un-looped palstaves in Cantabria and the hoard of VALDEVIMBRE (Prov. León)

'in which a socketed spearhead, conical spear ferrule and miniature anvil of north-west European types are associated with a saw, a flanged axe and a riveted dagger of Argaric affinity'

represent the beginning of the later phase of the Northwestern Bronze Age during which 'foreign metalworkers from across the Bay of Biscay may have been establishing themselves in the copper-mining areas of the north-west' (Savory 1968, 222-23; also Eiroa 1973-74, eg. 75).

On the basis of the Atlantic connections, as recognised by Savory (1948, 1949), MacWhite (1951), Briard (1965) and others, the development of the most elaborate Iberian bronzeworking industry in the Northwest represents the incorporation of Northwestern Iberia into the expanding economic system of the Atlantic Bronze Age, centred particularly on the Armorican peninsula, the Gironne and Loire valleys in Western France (cf. Briard 1965, Figure 65, Figure 85), and in Southeastern Britain (cf. Burgess 1968a, Figure 10, Figure 14).

The metalworking technology of the Northwest is distinguished by the use of true bronze and later lead mixes which are essential for bivalve mould casting which requires a metal of considerable fluidity. The analyses carried out by Craddock (1977) support those quoted by Siret (1913, 351-2) indicating that the characteristic Northwestern double-looped palstaves were true bronzes, ie. c.10% tin. However, some of the lead mixes contained a greater percentage of lead than was technically useful (ie. over 20% lead in some palstaves).

The use of bronze and the bivalve mould made elaborate castings, which needed no or little post-casting work, possible. Decorative features could be - and were - cast; long forms, such as swords, and socketed implements such as spearheads or axes, could be produced and used virtually in an 'as cast' form. Sheet bronze working was facilitated,

and the use of standard and leaded bronze also made it practicable to produce large numbers of identical objects, requiring very little post-casting work, and consequently the range of metal types, their degree of sophistication in form, decoration and functional efficiency far superceded the achievements of other peninsular bronze working centres.

The evidence for the connections with the Atlantic bronzeworking centres comes from a range of metal types, most of which derive from Briard's St.-Brieuc-des-Iffs (Bronze Final II) and Carp's Tongue Sword (Bronze Final III) traditions (1965, Chs. XI and XII). A number of types found in hoards of bronzework in the Northwest clearly indicate the Atlantic, in particular the Armorican, connections of this area:

#### PALSTAVES:

the single-looped, median ribbed, narrow palstaves found in Iberia can be related to L.B.A. II or III in Armorica (see Briard 1965, Figure 65). (Although some single-looped palstaves are found in Rosnoën (L.B.A. I) context (Figure 48) the Spanish palstaves appear to have the stronger loops of the L.B.A. II types, eg. Figure 60, 1-5.) The distribution of these palstaves during the St.-Brieuc phase is limited to the Armorican peninsula in France. Some Iberian examples are illustrated by Carriazo (1947, Figure 618). Savory (1948, 1958) noted the association of Iberian type palstaves in France and in Britain broadly within the Carp's Tongue horizon, eg. ROULLIASSE in Saintogne, associated with an end-winged axe and a socketed sickle.

#### SWORDS:

In the RÍO SIL hoard, San Esteban del Río Sil (Prov. Orense) a leaf-shaped sword of general Wilburton-St.-Brieuc affinities\* was found associated with a British M.B.A. basal-looped spearhead (Briard 1965, 197; Rowlands 1976, eg. Plate 41), a hollow-bladed spearhead of the type found in Burgess's Broadward complex (Burgess 1968b, 31, Figure 22, 5-7), and a bronze leech pendant. The hollow-bladed spearhead is an 8th-century type.

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\* Savory 1968, 225; López Cuevillas 1955; Almagro, Inv. Arch. E.3 (no.42).



This supports Almagro's date of the deposition of the hoard in the 8th century, but the presence of earlier material, ie. of 10th and 9th century date, probably indicates the earlier date of the establishment of these Atlantic connections. Savory (1949, 134-141, Figure 4, and p.152) has listed the finds and occasional associations, eg. at SOBREFEZ, Ponga (Prov. Asturias) of these leaf-shaped swords with U- and V-shoulders.\* The northern and western distribution of these leaf-shaped swords was noted by Savory (1949, 1968, 225) and their Atlantic origin cannot be questioned (see also Almagro 1966).

The most characteristic L.B.A. sword found in Iberia is the Carp's Tongue type, best known from the material dredged up from the Odiel estuary near the wharf of the Compañía de Tharsis in Huelva, in 1923, and published by Almagro (1940, with bibliography; Inv. Arch. E.1 and 1975). Carriazo (1947, 797ff) claims that in addition to the 300 complete and c.100 fragmentary pieces recovered, more material was left in the seabed. The Iberian Carp's Tongue swords (cf. Almagro 1940, Figure 18, 19; Savory 1949, 152-3, Figure 5; Savory 1968, 233-5; Briard 1965, 203ff, 237) are of the general Carp's Tongue type, ie. with narrowing blade tip, marked midrib, deep ricassi, straight shoulders and a 'fish-tail' haft (cf. Briard 1965, 203). The distinctive feature of the Spanish Carp's Tongue swords is the use of slots instead of rivet holes on the shoulders as well as the hilt plate. Although Savory (1948) noted that slots tended to replace rivet holes on leaf-shaped as well as Carp's Tongue swords in Atlantic France as well as in Iberia, the Iberian arrangement does appear to be exceptional and implies an indigenous centre of production.\*\* At HÍO, Cangas de Morrazo (Prov. Pontevedra) two Carp's Tongue swords were associated with spear-heads, sheet bronze

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\* These include 2 swords from the Museu Etnológico Portugues, Belem, said to have come from 'Safára, Alemtejo' and from 'Alemtejo'; they appear in Almagro (1940, Figure 17, 8-9) as from 'Alemtejo (Extremaduro o Portugal)'. The same swords appear in Schubart's catalogue (1975a), as coming from a 'hoard' in the Evora area.

\*\* Which Savory (1968, 233) believes was established in the southwest by 'late colonists from the valleys of the Upper Ebro and Tagus', but which was almost certainly located in the Northwest.

vessel(s), single-looped palstaves, 2 bronze armrings, flesh hooks, and two early socketed axes/chisels (eg. MacWhite 1951, Lám.XXXV; Schubart 1961; Almagro Inv. Arch. E.9); Almagro suggests a 7th century date of deposition, but an 8th century date is also possible.

In the hoard of CABEZO DE ARAYA, Navas del Madroño (Prov. Cáceres), a piece of a Carp's Tongue sword was found together with spearheads and ferrules of striking resemblance to those found in HUELVA; one large and two small arrow-heads, bronze rings and multiple ring pieces, and Phalerae, all of which also have parallels in the HUELVA hoard, but no others in Iberia; bronze 'beads' or lumps, and cylindrical pieces of bronze, some with vertical perforations which are found in HUELVA too; and a piece of a bronze saw blade; and pieces of belt hooks like those from HUELVA (Almagro Inv. Arch. E.4). This hoard is noted for the absence of palstaves, which also applies to HUELVA (cf. Almagro Inv. Arch. E.1 - see especially Lám.34, 35, 37, 38). The significance of the similarities of content of these hoards will be considered in greater detail below. The contents of the HUELVA hoards, as published by Almagro (1940) and Inv. Arch. E.1, included spear-heads (possibly as many as 100, cf. Carriazo (1947, 797; Schubard 1975a, 90); 62 ferrules, 78 swords, and 29 daggers\*, 17 arrowheads, 14 'buttons' or phalerae, 2 pin heads, 10 simple or multiple rings, cylindrical pieces\*\*, some with perforations, pieces of sheet bronze possibly from helmets (cf. Schüle 1969, 116), pieces of 5 bronze torques, 2 belt hooks and 4 fibulae (as well as fragments of fibulae), and c.100 unidentified fragments (Almagro 1975). Among the swords - generally of Carp's Tongue type - some solid hilted examples were found: Briard (1965, 237) notes that they are also found in the Balearics, but that they are part of the Atlantic Carp's Tongue sword series, unlike the Italian swords (of Eastern Mediterranean

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\* The daggers are notched or with rivet-holes which are 'typiques du Bronze Atlantique espagnol', according to Briard (1965, 237).

\*\* Blazquez (1975, 415) claims that 'tortas cilíndricas de bronce' from the Colección Calzadilla came from Extremadura and represent currency introduced by the Phoenicians. It is not clear what these are like, nor whether they resemble the cylindrical pieces found in these 2 hoards.



derivation, cf. Hencken 1956). Hencken (1956, 134) proposes a date for the HUELVA material of some time during the 7th century, although he admits that some of its contents were earlier types; the basis of this date are the 'Sicilian' fibulae, which Schüle (1969, 25ff) regards as an Eastern Mediterranean - rather than Sicilian - type which originated in the 9th century at the latest. Almagro (Inv. Arch E.1) proposes a deposition date in the 2nd half of the 8th century, ie. in the period during which these types were in use. Briard (1965, 237) includes it in the general Atlantic Carp's Tongue horizon; and Hawkes (1952) proposes an early 7th century date.

In summary, it can be said that the majority of the types found in HUELVA and CABEZO DE ARAYA were 8th and 7th century types and, as in the case of RÍO SIL, the presence of earlier material cannot be used to impose an earlier date on the deposition of the hoard.

#### SPEARHEADS AND FERRULES:

a large variety of these are found in Iberia, many with specific parallels, but all within the general range of Atlantic Middle to Late Bronze Age products. There are a few imports, ie. the basal-looped spearheads from RIO SIL, and the lunate spearhead from HUELVA (Almagro Inv. Arch. E.1, Lam.28, 140) of Wilburton type (Briard 1965, 196).

The single bladed razor and the button sickle are other examples of the Atlantic connections. Savory remarks on the specifically Irish connections of some material found in Iberia, ie. the HÍO flesh hooks, the CARBÁRCENO (Prov. Santander) and LOIS (Prov. León) cauldrons; he also regards the HUELVA lunate-spearhead as Irish (Savory 1968, 22405, 233). Five of these razors, including two decorated with engraved lines, of Rosnoën type (cf. Briard 1965, 196) were found in the HUERTA DE ARRIBA hoard (Prov. Burgos) together with rivetted daggers, a spearhead, an awl, two armrings and three double-looped palstaves (Almagro 1943; MacWhite 1951, 109, Figure 34, Lam.XIII; Almagro Inv. Arch, E.5). Despite the earlier origin of the razors, the hoard is dated to the 8th or 7th century.

There are also bronze CAULDRONS, which can be related to the class B 1 Atlantic bronze cauldrons, as distinguished by Hawkes and Smith (1957), following Leeds (1930). The characteristic sheet bronze Irish and British round-based L.B.A. cauldrons with 'ring-handles riding in cast bronze staples' (p.160) are found in Northern Iberia at HÍO and CARBÁRCENO, cf. Hawkes and Smith's distribution map, Figure 10. Schubart (1961) has recognised closer parallels for the CARBÁRCENO cauldron in finds from LOIS (Prov. León) and A PENEDA, Arcade (Prov. Pontevedra); as well as a series of other bronze vessels - all within the Northwest and Northern Atlantic regions of Iberia - which appear to combine some elements of the British cauldrons and buckets. He suggests that there may have been an indigenous centre of bronze sheet production in the Northwest (1961, 50) as proposed by Hawkes (1952):

'El caldero de Carbárceno ha debido ser fabricado por bronceistas del Bronce Final atlántico del noroeste de España, de un modelo prototípico importado de Irlanda. Se situaría hacia el final del siglo VII.'

(pp.110-111)

and it therefore represents a later phase of sheet bronze production than the material from HUERTA DE ARRIBA (Prov. Burgos).

The material described briefly here illustrates the Northwest Iberian/Atlantic seaboard connections: in terms of content, we have a number of Atlantic imports, and also indigenous developments which can be related to the imported types as well as general Atlantic products of the L.B.A. The content of the indigenous bronze production gives us some indication of the date of the greatest integration of Northwest Iberia within the Atlantic regional network.

In Western France and Britain, socketed axes and end winged axes replaced broad bladed palstaves during the Carp's Tongue Complex (ie. L.B.A. III in Armorica, Bexley Heath tradition in Southeastern Britain). There are no winged axes known in Iberia and only a few socketed axes (some of which have the later square socket feature) (as noted by Savory 1948). This would imply that the large double-looped palstave which was an indigenous



development from the smaller palstaves (as recognised by Savory and MacWhite) was the functional equivalent of the Armorican median winged axes and the French and British socketed axes. It can be said that the Armorican domination of the repertoire of Northwestern bronze production would appear to have ended during the period of the Carp's Tongue Complex, and certainly before the beginning of the Armorican axe series in late L.B.A. III. Furthermore, many of the classic Carp's Tongue Complex elements are not found in Iberia: the elaborate range of bronze hollow-cast arm and neckrings, the open fretwork, the cast razors and ornaments, decorated bronze plaques, and, most noticeably, the harnessing material including the 'bugles' (Briard 1965, Figures 75-84; Burgess 1968a, Figure 13). In fact, no obvious complexes of horse harnessing material are found in Iberia, and although some rings and phalerae were found in HUELVA and CABEZO DE ARAYA, they do not indicate a horse-riding complex of material: they may have been used for decorative purposes as were perhaps the golden tutuli found in the Southwest.

There are a number of features which distinctly indicate an Armorican/Loire connection with Iberia. For example the U-shouldered sword type appears to be more characteristic of the St.-Brieuc than the Wilburton tradition (Burgess 1968a, 8): the evidence for these U-shouldered leaf-shaped swords has been briefly noted above, but see Almagro (1940 and 1966, 143ff) for more details. The Carp's Tongue swords with decorated blades, cf. HUELVA (Almagro Inv. Arch. E.1 Lám.2, 5-8) are considered to be an early development within the Carp's Tongue series by Briard (1965, 205); these swords with engraved lines along the midrib have the distinctive Iberian slots on the shoulders, and it is therefore possible to suggest that their production began in Iberia at an early stage within the Carp's Tongue sword series. Briard also notes that although Carp's Tongue swords are never associated with double-looped palstaves in Iberia, they are in Brittany, at PEN-AR-PRAT, Le Folgoët, Finistère (1965, 237 and Figure 73, 4); another one was found at ANGERS. A socketed axe with 2 loops was found at SAINTE-SUZANNE, Mayenne (p.211). The PEN-AR-PRAT palstave (211mm long) revealed a high tin content - 20% - (Briard 1965, 211) which; as will be shown below, corresponds with the content of many of the large double-looped palstaves in the Northwest.

Briard also notes the possible Iberian origin of some copper cakes found in Carp's Tongue hoards (on the basis of Stuttgart analyses) (Briard 1965, 47). Savory notes the association in Iberia, eg. at HÍO (Prov. Pontevedra) and ERVEDAL (Beira Baixa) of Carp's Tongue swords and single-looped palstaves: but

'On the other hand neither the remaining elements in the carp's tongue sword complex of France, nor winged axes or many other West Alpine types are well represented, if at all, in the Iberian peninsula. This provides a good indication of the horizon on which this Iberian Atlantic industry originated ... it resulted from the impact of Hallstatt 'B' upon Biscayan France, but before the development of the full carp's tongue sword complex there.'

(1948, 60)

The beginning of the Carp's Tongue Complex in the 8th century is generally accepted and following Hawkes and Smith (1957) Butler (1963, 240), Briard (1965, 239) and Cowen (1967) the continuation of Carp's Tongue Complex elements into early Hallstatt C (which began c.720, according to Kossack 1959) must be recognised. Late Carp's Tongue elements are also probably in part contemporary with the 6th century Armorican axe series.

When Briard suggested that the Iberian Carp's Tongue swords were more like the Southern English swords than the French swords (1965, 237), he was basing his comparison on the most elaborate (and only complete) example of Carp's Tongue swords in France from the Loire valley and he was overemphasising the Armorican influence on Britain (cf. Burgess 1974, 210). The Carp's Tongue tradition in Southern Britain and Western France now appears to be represented by bronzeworking industries sharing many types and 'continuing the centuries old cross-Channel connections...' (Burgess 1968a, 17), in which neither one dominated the other.

The examples given here would therefore substantiate the Armorican/Iberian connection, particularly during the early Carp's Tongue complex phase, ie. Bronze Final III. The overwhelming feature of this phase of



Armorican bronze-working is the enormous increase in production, the range of products and the distribution of the bronze work:

'Derivé partiellement de Saint-Brieuc-des-Iffs, le groupe de l'épée en langue de carpe est important qualitativement et quantitativement (plus de 60 dépôts, dont certains contiennent plus de 500 instruments et debris). Il est le témoin d'une stabilisation des types et aussi d'une production en série attestant des circuits de fabrication et d'écoulement parfaitement au point, que permettent de nombreux échanges commerciaux avec toutes les régions d'Europe.'

(Briard 1965, 294)

At the same time, there is a similar increase in bronze production in Southeastern England (Burgess 1968a), Northern France, and Scandinavia (Butler 1963, eg. 229; Montelius V was a time of prosperity in Denmark).

The increased bronze production on the Atlantic seaboard corresponds with the period that Savory (1948, 156-9), Hawkes (1952, 103) and Sanders (1957, eg. 281-2) recognise as the period of the expansion of Central European Late Urnfield, Hallstatt B, influence (and population) into Northern France and a breakdown of the traditional boundary between Atlantic and Central Europe. Elements of Urnfield metalworking, such as winged axes and bracelets, were incorporated into the Carp's Tongue repertoire (eg. Butler 1963, 240), which supports the case for Urnfield connections (but not incursions). As Briard notes:

'Les rapports avec les Champs d'Urnes sont complexes; plus qu'une invasion, les nombreux objets importés suggèrent, comme le notait déjà W. Kimmig ... des relations commerciales actives particulièrement dans la zone de contacts que fut l'embouchure de la Loire qui connut à cette époque une prospérité encore jamais atteinte.'

(1965, 238)

The intensive interaction between Central Europe and its Western and Northern peripheries during Hallstatt B were such that for Montelius V, Butler remarks that 'Northern Europe was, of course, under heavy Central European trade influence ... and the East-West [Atlantic] trade was a merely peripheral phenomenon' (1963, 228):

But this relationship between the Central European core area and its Western and Northern peripheries was to change in Hallstatt C: the indications of Hallstatt C connections in these areas represent isolated elements (cf. COURT ST. ETIENNE) which many authorities have interpreted as indicative of raiding, etc. (Hawkes, Coles and others as cited in Burgess 1968a). The exact nature of these relations has yet to be examined in detail, but the evidence contrasts quite clearly with the Hallstatt B situation. This implies that we are dealing with changing economic relations between Central Europe and its peripheries. During Hallstatt B, the bronze industries on the Northern and Western peripheries had been boosted as a consequence of both the increasing scale of exploitation and trade in raw metals, as well as of bronze production and consumption within Central Europe. Two features of the beginning of Hallstatt C (ie. end 8th century) in Central Europe must be considered if we are to understand the subsequent developments of the Atlantic bronze industries and their regional organisation.

Firstly: during Hallstatt C the economies of Central Europe were re-oriented towards new trading opportunities directly to their south, ie. the Greeks were operating within the Central Mediterranean by the mid 8th century, and Etruscans and Greeks were in Southern France during the 7th, Etruscans were established in the Po valley, Greeks at the head of the Adriatic by the end of the 7th century. This would have involved a re-orientation of production and trade in raw metals as well as control over communication routes of emerging significance in order to satisfy the demands of new trading partners in the south. This would, predictably, result in the disruption of the established economic links with the Northern and Western peripheral areas and signs of dislocation can be expected to occur on the borders of the former regional economic system, which were excluded from the new regional economy.

Secondly, the development of iron technology during Hallstatt C in Central Europe would have resulted in a decline in demand for the vast quantity of bronze that had been required during Hallstatt B for producing heavy tools and weapons which were being replaced by iron counterparts. In Atlantic Europe in general, for example in Armorica, economies based



on bronze production would have been threatened by:

- (a) the probable decline in exploitation of copper and tin and their distribution within Central Europe and therefore decreasing availability of raw metals in the dependent peripheries; and
- (b) the bronze surpluses, or raw metals for bronze as well as silver and gold, could have been supplied to Southern trading partners, thereby making the components of bronze doubly difficult to obtain in the peripheries.

Thus the Atlantic bronze industries that had flourished during the 8th century, on the basis of being part of a single regional system and therefore having access to Central European resources and products, would have had to reorientate their procurement of supplies during the later part of the 8th century, e.g. Bronze Final III in Armorica. The relations with Northwestern Iberia during St.-Brieuc-des-Iffs would most certainly have involved Armorican access to the tin resources, for which the Northwest is renowned. It is also possible that, at this stage, copper was supplied to the Northwest from Armorica, ie. indirectly from Central Europe, since there are few copper ores in the Northwest, certainly not enough to support the bronze industry that developed there. As Briard has noted, the coastal and island situation of most Carp's Tongue hoards in Armorica and the Loire area (1965, 295, Figures 65 and 85) would imply the crucial role of maritime communication at this time, and the probable location of the centres of their production. It is suggested here that during the Carp's Tongue Complex phase of the Armorican L.B.A. there was a re-orientation towards Iberia which became the major source of raw metals: not only tin, but copper too. At this stage, the coastal trade was probably organised on the basis of small relays along the coast and inland by way of the major rivers, with the hoards representing collections of metalwork awaiting shipment or reaching metalworking/distributing centres.

In Armorica, the need to sustain high bronze production for local use could no longer depend on the Central European supplies of raw materials and from the 8th century would probably have relied on Iberian metals. As noted above, one of the copper cakes in the Carp's Tongue

material was shown to be of Iberian type (Briard 1965, 47 and 225); large copper cakes as well as casting debris are frequently included in Carp's Tongue hoards. This stimulated the development of an independent economic and commercial network linking the areas around the Bay of Biscay and the northern Atlantic seaboard into a single economic sphere \*, separate from the major transformations occurring within Central Europe in the 7th and 6th centuries. Although the early part of the Carp's Tongue horizon is connected with Hallstatt B, the contemporaneity of the later phase with Hallstatt C has been noted by Hawkes and Smith (1957), Butler (1963, 240), Briard (1965, 239) and Cowen (1967, 416). Burgess (1968a) notes that following the 'industrial revolution' of the mid 8th century, despite the apparent Hallstatt C influences from the mid 7th century - whether resulting from confrontation, trade or immigrant smiths:

'Everywhere the existing industrial traditions must have continued basically undisturbed, for the range of Hallstatt material is small, and few of the relevant hoards show any great degree of Hallstatt influence.'

(p.26)

The socketed axes - with square sockets - that characterise the final phase of the L.B.A. in Armorica appear whilst Carp's Tongue material is still in use, but were mainly produced later and have even been found in association with characteristic Iron Age material (Briard 1965, 275, 282). Briard's Figure 109 shows the amazing number of hoards of socketed axes: 212 in Brittany, containing 22,100 axes (1965, 242) with a further 79 hoards, containing 10,400 axes known from Manche and Mayenne. Most

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\* The few socketed axes found in the Northwest, listed in López Cuevillas (1955), indicate that the connections between the two areas continued into the period in which socketed axes with square sockets had become dominant:

'siendo de notar que la mayor parte se localizan en la costa o en sus proximidades y que varias de las piezas, como ocurre en una de Hío y en otra de Rotiz, aparece el tubo cuadrado, tan comun en Bréaña...'  
(López Cuevillas 1955, 238)

But, the HÍO socketed axes/chisels are in fact a much earlier type; and the Portuguese socketed axes appear to be an indigenous development of the Atlantic type, having two loops (of which 4 finds are mentioned by MacWhite 1951, 72, Figure 18).



hoards, made up exclusively of axes, were deposited in layers in the ground and covered with a stone (p.243). Briard has distinguished 7 types of axes, on the basis of length and weight, which also appear to have differing metal content and be the products of distinct bronze working centres. The large variety of axes suggests to Briard that clay moulds were used for their production and regional types are recognisable within Brittany on the basis of the contents of hoards from the coastal areas and inland (1965, 282 and Figure 105). It is significant that in addition to the pure lead axes, axes of other types (especially Tréhou and Couville) contain more than 20% lead. (The lead has traces of silver which characterise Breton lead.)

'La multiplicité des dépôts de haches à douille, qui représentent en gros les deux tiers des dépôts recueillis en Bretagne, pose encore de nombreux problèmes que la théorie de la hache-monnaie ne suffit pas à résoudre. On peut avancer l'hypothèse d'une brusque prolifération d'artisanats fondeurs, ce que l'étendue des dépôts dans toute la Bretagne peut confirmer, venant accroître brusquement les stocks de bronze à une époque où cet alliage va être supplanté par les industries du fer. Les haches à douille présenteraient alors le premier cas d'une surproduction industrielle en Armorique. On peut aussi penser que l'épuisement des gisements d'étain, la difficulté de s'approvisionner en cuivre conduisirent à fabriquer des alliages à teneur anormale en plomb, donnant un métal de mauvaise qualité qui jeta le discrédit sur un commerce qui pourtant avait eu l'honneur d'un commerce à l'échelon européen.'

(Briard 1965, 294)

These hoards can be seen to represent the disturbance of bronze production in the Western periphery in the late 7th and 6th centuries and the break-up of the former coastal-based production and/or distribution centres. The extraordinary combinations of the 3 constituents of L.B.A. 'bronze' was due to shortages in raw metals and probably the smelting down of scrap to produce castings whose composition was less competently controlled. This resulted in the production of 'bronzes' which were often unusable and due to the variation in content, weight, etc. were unlikely to have been used as ingots; subsequently, the axes were disposed of, rather than utilised.

The Armorican L.B.A. developments are relevant to the understanding of the Northwestern Iberian bronze industry, its inception and subsequent evolution. The beginning of Armorican connections and the decline in Armorican dominance over the content of Northwestern bronze production during an early part of Bronze Final III has been discussed above. It has also been proposed that the relations between Armorica and Northwestern Iberia were significantly altered due to an increasing dependence of the former on the latter for essential raw metals.

The distinctive Iberian double-looped palstaves that characterise the L.B.A. in Northwestern Iberia (MacWhite's and Santa Olalla's Bronce Atlántico III; Eiroa's Bronce III) are best known from the hoards found in coastal and riverine situations. López Cuevillas noted that the exploitation of tin in the Northwest

'... había provocado desde los comienzos del Bronce un fuerte movimiento industrial y comercial, que se nos revela en el gran número de hachas, sobre todo de talón aquí encontradas, ya en la situación costera, o muy próxima a la costa de la casi totalidad de los grandes depósitos registrados, que nos indica que los objetos de bronce se concentraban en los lugares en que el tráfico era más frecuente y vivo y que su exportación se realizaba por vía marítima.'

(1955, 13)

The distribution of these hoards, as published by del Castillo López (1927), López Cuevillas (1955), Monteagudo (1951) and Eiroa (1973-74), is shown in Figure 12. When del Castillo published 7 hoards in 1927, c.300 palstaves were known; by 1951, Monteagudo knew of c.700, of which only 4 had no loops, 20% had one, and 80% had two loops (Monteagudo 1951). He defined the main 'calaico' type, with a short, more or less straight sided blade, plain or with one narrow or 3 broad ribs, usually having 2 loops; its distribution was within ancient 'Galleicia', ie. Galicia and extending to the Duero, and including part of León and Asturias. One of



- 1 SAMIEIRA
- 2 PARADELA
- 3 SIMES
- 4 TREMOEDO (CAMBADOS)
- 5 SAN JUAN DE LAGAO
- 6 SENRA
- 7 PASTORIZA

(minor):

- 8 MUIÑO DA GRANZA
- 9 VILAR DE MOUROS
- 10 VIATODOS
- 11 GANFEI
- 12 VILAFRÍA
- 13 ARMENÓN

MAJOR HOARDS OF ATLANTIC AND LOCAL BRONZEWOR:

- a HÍO
- b RÍO SIL
- c CABEZO DE ARAYA
- d SOURE
- e ARGANIL
- f PRAGANCA
- g HUELVA

DISTRIBUTION OF CENTRAL PORTUGUESE TYPES

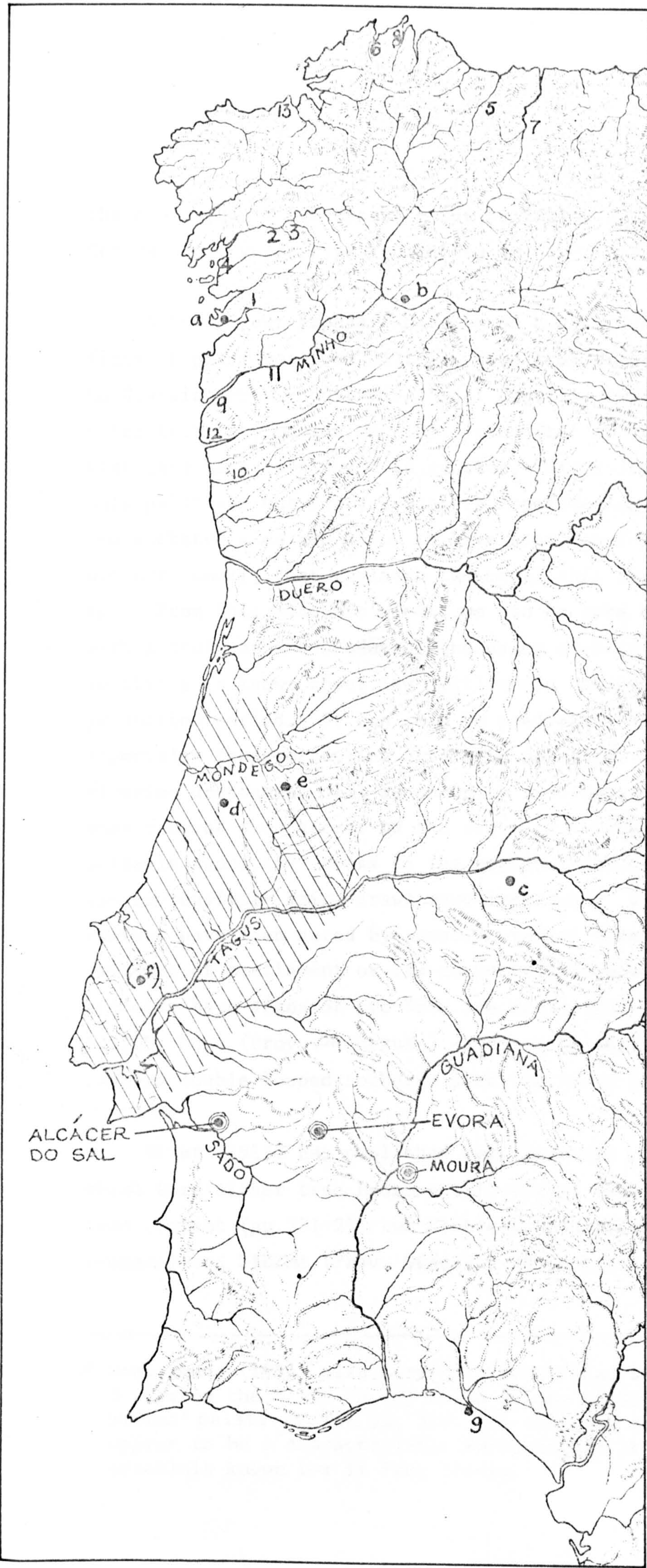
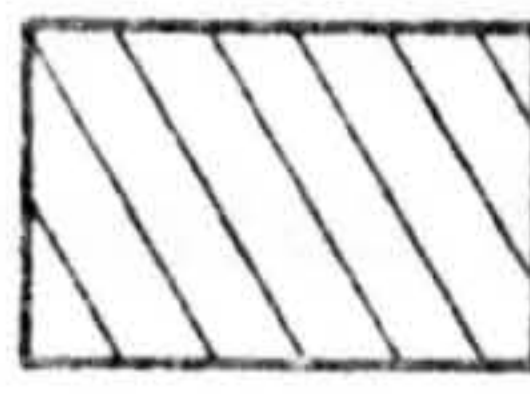


Figure 12: Distribution of main Late Bronze Age bronze work.



the Monteagudo's sub-types\* - the Estremeño type - is the flat-backed Central Portuguese type recognised by Savory (1949) and MacWhite (1951).

Although our emphasis here is on hoards, there are many single finds of palstaves from Galicia, some from settlements, eg. STA TECLA, La Guardia (Prov. Pontevedra) (del Castillo 1927). Monteagudo (1954) notes that many moulds of clay, 'steatite' or bronze, for palstaves and flat axes have been found in castros. Eiroa (1973-74) notes that not only palstaves but swords, daggers, spearheads, beads, flat axes and a few socketed axes are known to have been found in stone cists, with or without tumuli, that replaced the megalithic tombs during the later Bronze Age. From this evidence alone, we can be sure that we are dealing here with a truly bronze-producing and using society. It is unfortunate that so little is known about the settlements corresponding to the major bronze production period. It can only be predicted that many of the castros, especially those occupying strategic positions with regard to coastal or riverine dominance, will be shown to have been occupied during the L.B.A., when control over access to the ore-rich interior zones and settlement in suitable zones for access to the regional network into which the Northwest was increasingly being drawn were important. So far the Northwestern castros have been dated by location rather than by any reference to evidence of settlement or its content (discussed in Frankenstein 1971), but some have signs of pre-Iron Age occupation, eg. STA TECLA; and castro NEIXON, Noya (Prov. La Coruña), where a tripartite bronze mould for casting double looped socketed axes was found (De Blas Cortina 1975).

Siret (1913) has published some analyses of double-looped palstaves which were either true bronzes (cf. Figure 125, 1-3), or had c.10-15% lead content (pp.351-2): two double-looped palstaves from BAZA (Prov. Granada) and DIEZMA (Prov. Granada) (Figure 125, 2-3), are noted as

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\* Monteagudo (1951) also correctly identified an 'onubense' type with 3 ribs on the blade (p.10) which is one of Schubart's 'Minas de Huelva' palstaves, Taf. 52, 516. It only has one loop and does not appear to be a characteristic Northwestern product. Nor are any parallels known for it from Iberia.



having 85.29% copper, 6.85% tin; and 89.43% copper and 10.22% tin, respectively. One from ALMEDINILLA (Prov. Córdoba) (?) which showed no post-casting work, was one of the many double-looped palstaves 'en bronze plombeux' that Siret recognised, and illustrates (in Figure 126, 1) and for which he gives the metallurgical content as 69.06% copper, 11.95% tin, and 6.83% lead. The others of this type come from - or can be assumed to come from - the Northwest: in most cases they show no signs of post-casting work; sometimes the casting-cup is still attached: they contain a fairly standard 10% tin, but the copper to lead content varies from 60.68% copper with 27.80% lead to 75.80% copper with 13.60% lead. But the analyses of some double-looped palstaves published by Eiroa (1973-74, 83) give another combination of the three major components of the L.B.A. 'bronze':

*Origin of double-looped  
palstave - and No.*

		Cu	Sn	Pb	Zn
No.1	unknown	47.2	36.3	5.2	2.5
No.2	"	50.3	28	7.1	0.6
No.3	"	63	21.7	2.6	1.2
No.5	Samieira	27	48.2	8.3	3

The objects he had analysed are illustrated on his Lám.6; those quoted here are reproduced on *Figure 13* together with the true bronze examples from Granada, and some of the leaded bronze palstaves identified by Siret.

We can therefore identify three basic components of the double-looped palstaves: the standard tin-bronze, cf. 2 finds from Granada, and one from COROPO (presumably in the Northwest) cited by del Castillo (1927, 23-4); then there is a group with high lead content, varying from 13.60% to 27.80% (into which 2 palstaves from MONFORTE analysed by del Castillo could be included); the palstaves characterised by a high tin content corresponding with a drop in the copper content are only known from Eiroa's analyses and their reliability is suspect for several reasons. Eiroa has noted the high lead and tin content of the SAMIEIRA double-looped palstave and correlated it with the 'similar tendency' observed in the Armorican series, by which he gives the SAMIEIRA hoard an earlier date within the



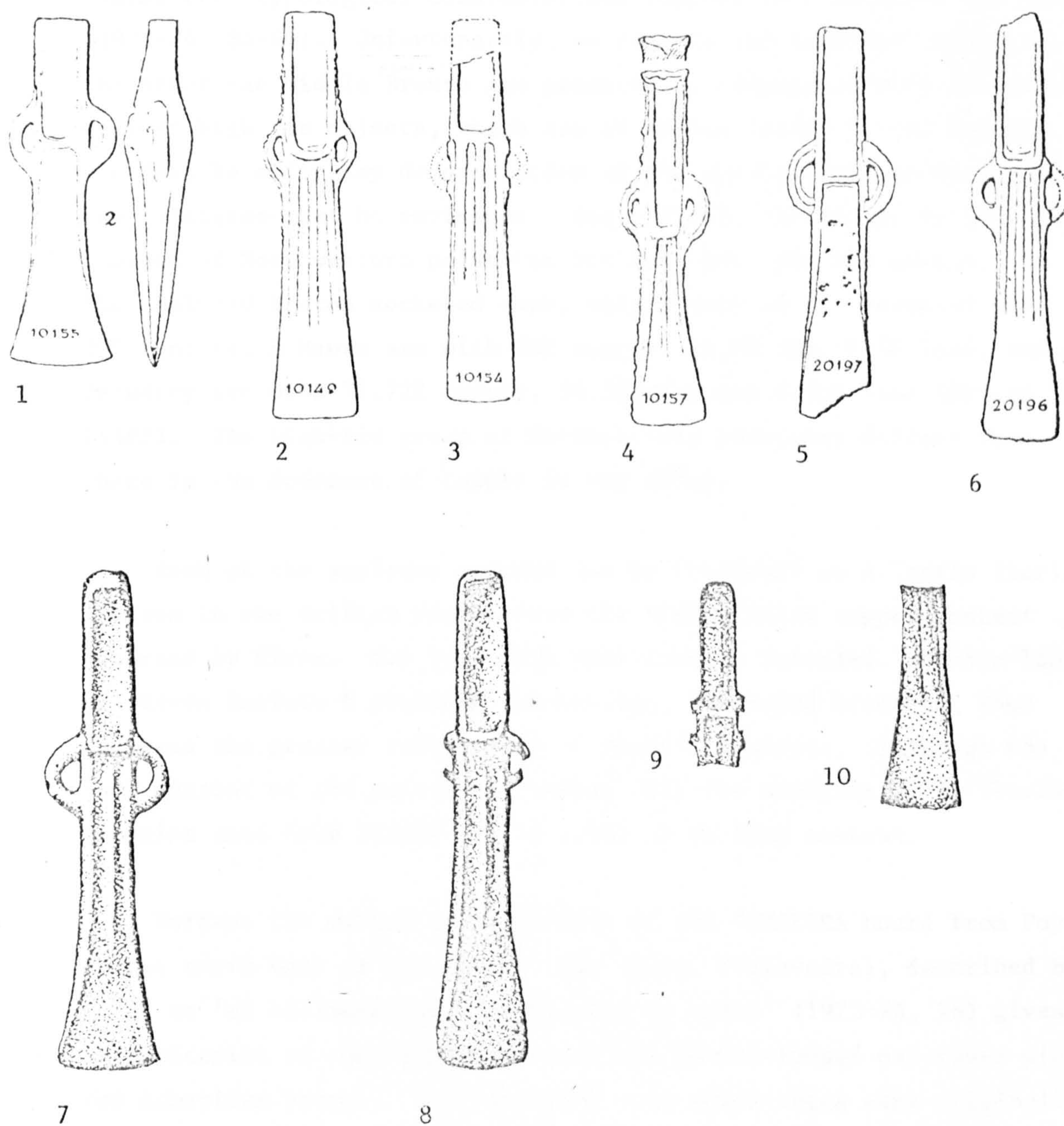


Figure 13: Double-looped palstaves, analysed by Siret and Eiroa.

1. Siret, 1913, Fig. 125, 2, BAZA, Prov. Granada; 2. Siret, 1913, Fig. 125, 3, DIEZMA, Prov. Granada; 3. Siret, 1913, Fig. 125, 4, SOTOMAYOR, Galicia;
4. Siret 1913, Fig. 126, 1, ALMEDINILLA, Córdoba (?); 5. Siret 1913, Fig. 126, 2, MONFORTE DE LEMUS, Galicia; 6. Siret 1913, Fig. 126, 3, MONFORTE DE LEMUS, Galicia;
7. Eiroa 1973-74, Lám. 6, 5, SAMIEIRA, Prov. Pontevedra;
8. 9. and 10. Eiroa 1973-74, Lám. 6, 1, 2 and 3, unknown provenance, Galicia.

Not to scale.



double-looped palstave series than those with high tin content and claims that typological considerations support this relative chronology (1973-74, 84-86). Unfortunately, he regards the high-tin content of the Armorican Middle Bronze Age products as comparable with the Northwestern high tin objects, which are of course leaded L.B.A. bronzes. Nor does he offer any demonstration of the typological succession of the palstaves that he envisages. Jully (1965, 31) refers to 30% tin content of Northwestern palstaves but does not cite his source. Of the analysed Breton socketed axes, only 2 (out of 11) revealed more than 20% tin: ie. a Maure axe with 70% copper, 21.5% tin, 8.5% lead, and a Brandivy axe with 71.72% copper, 24.32% tin and 0.30% lead (Briard 1965, 254ff). The high-tin group of Northwestern palstaves differs from these in the decrease of copper in the alloy.

None of the analyses carried out by Craddock\* on Atlantic Iberian bronzes in the British Museum have the high tin/low copper content reported by Eiroa. Nor is a high zinc content recorded. Double-looped palstaves include 6 standard tin-bronzes, 17 leaded bronzes. They indicate the greater reliability of Siret's analyses. Although the lead content of the palstaves reaches 35%, the analysis of 4 'Iberian' trunnion axes have little (up to 4.1%) or no lead content.

Perhaps the method of deposition of the SAMIEIRA hoard from Poyo, on the north bank of the Ría de Vigo (Prov. Pontevedra), described by Eiroa as 'el hallazgo más espectacular de todos' (1973-74, 76) gives us an indication of some correlation of the double-looped palstaves with the Armorican hoards. The palstaves - of which there were originally probably about 175, 152 having been preserved - were found in layers of 5 superimposed upon each other, and covered by a slab. The axes were of varying sizes and, like the contents of other hoards, were in as-cast condition; only 10 were broken (Eiroa 1973-74, 76-77).

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\* These analyses are to be published by Dr. Craddock (1977). I should like to thank him for making them available to me now. Unfortunately this information reached me too late for the B.M. objects to be studied in detail and included here.

The large number of these hoards, containing between 20 and 175 palstaves, appears to represent on a smaller scale the phenomenon observed in Armorica during the Early Carp's Tongue horizon, ie. the collection of objects for transport by sea, often in as-cast form. The hoards should be regarded as a form of storage or collection on which the entire Atlantic bronze trade had been based, ie. collection of materials for transport in short relays along the coast, or upstream, to be used or distributed there. The opportunities for long-distance traders to intervene in an 'entrepreneurial' role had existed for some time: it was soon to be taken up. It is suggested here that the crisis observed in Armorica did not occur in the Northwest since by the beginning of the 7th century metal-work was being collected and transported by Phoenicians, and their intermediaries on the Western seaboard of Iberia.

However, it is necessary to examine the basis of the existence of the Northwestern bronze industry, before dealing with its later stages and reorientation.

The adoption of a full bronze technology, as was characteristic of the Atlantic M.B.A. and L.B.A. depended, ultimately, on reliable supplies of copper, tin and lead. The tin resources of the Northwest are well-known (cf. Davies 1935; López Cuevillas 1953; Allan 1970; Muhly 1973, 253, with references to the accounts of Posidonius, Pliny the Elder and Strabo). They are frequently given as the reason for the connections between Northwestern Iberia and the Atlantic bronze production areas. But since neither copper nor lead are found in the Northwest (with the exception of a little copper in Asturias), the bronze industries would therefore have depended on external relations for these crucial supplies. Thus, Northwestern Iberia was not a self-sufficient source of supply for its own bronze industry or for any external demand and had to stimulate a flow of supplies from within Iberia to meet its critical need for copper (and later lead too).

The source of copper used by the Northwestern bronze industry was, it is proposed here, the Southwestern copper rich area, mainly Schubart's 'Southwest'. It can be shown that the 'Southwest' depended on the North-



west bronze-working centres for finished products of Atlantic metalwork type and had no bronze-working tradition of its own. Thus, the 'Southwest' lacked the technical skills in bronze working (as blatantly evident from Phase I) and also the tin ores required for the bronze alloy. The situation observed during Phase I, ie. dependence on external supplies of finished products, and orientation - possibly towards the Tagus - of the exploitation of copper, and the absence of any indigenous metal types, would appear to be replicated in Phase II. It can be suggested that it was by controlling the vital tin resources and the technological skills that the Northwestern bronze industries were able to maintain their dominance in the relations with the suppliers of copper. It is also important to note that during the earliest stages of bronze working in the Northwest, some copper may have been obtained through Atlantic connections, ie. ultimately of continental European origin, and that the reliance on the Southwestern copper supply only occurred subsequent to and connected with the expansion of the Northwestern industries. It has already been put forward that the Northwest may ultimately have acted as supplier of copper, as well as tin, to the other Atlantic bronze industries, notably to the later Carp's Tongue industry in Armorica. This would be the period of the standard bronze palstaves in Galicia, the standard bronze Carp's Tongue swords in Armorica (cf. Briard 1965, 225) and the standard bronze Carp's Tongue material from HUELVA (Almagro 1940, 85),\* ie. the late 8th or even early 7th centuries.

The Northwestern bronzeworking industries had therefore to find copper resources within Iberia to meet their own requirements and those of their external trading partners. The feasibility of the development of a flourishing and accomplished bronze metallurgy in Northwestern Iberia must always have been critically dependent on sources of copper from further south, and quite soon on sources of lead too.

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\* Almagro (1940, 85): 'El metal de estos objetos fué analizado por Aragón, químico de la Compañía Minera de Tharsis, y ha proporcionado la siguiente composición para las espadas: 89.38 de cobre, 10.54 de estaño y 0.065 de antimonio, sin rastro de otros metales. Esta aleación es aproximadamente la misma para todos los objetos. Sólo los punales ofrecen una aleación algo más rica en estaño.' (He cites a publication by Albelda, Revue Archeologique 5ème serie, 17-18, 1923, p.226.)

It is argued here that access to copper resources, which are of more general distribution than tin, see Figure 7, could always have been controlled from the Northwest by command of the bronzeworking technology and tin ores. The particularities of this relationship can be substantiated by a number of interesting features associated with the imports of bronze metalwork in Schubart's 'Southwestern' Bronze Age Phase II. In general, it can be said that bronze finds are very scarce in the 'Southwest', especially when compared with the Northwestern distribution. It is also interesting to note that the bronzework found in the 'Southwest' is mainly of weapon or ornament categories and very rarely tools. This implies that these imports do not constitute the use of bronzework to satisfy utilitarian needs; instead, the imports are all items which could potentially take on high status meaning, as had the Argaric daggers during Phase I.

As Schubart has noted, there are fewer metal finds among grave contents in Phase II than in Phase I (see for example the schéma: Schubart 1971, Figure 4). Phase II is defined mainly on the basis of grave type and pottery - ie. open bowls with high carinations, closed forms, ie. 'bottles', some with ribbing which is thought to be due to a metal prototype - and controlled by stratigraphic observations, eg. at ATALAIA, Ourique (Baixo Alentejo) (eg. Schubart 1964, 1975a, 138ff). In fact, only riveted daggers occur in graves during Phase II:

'Für das Fortleben der Nietdolch-Form bis in die jüngere Bronzezeit bieten Grab 1 von Medarra (Taf.55) und Belmeque (Taf.59) eindeutige Belege. Weiter kommen Nietdoche zusammen mit rillenverzierter Keramik der Santa Vitória-Stufe auf mehreren Graberfeldern vor.'

(Schubart 1975a, 75)

The isolated bronze finds from the 'Southwestern' area, or just beyond it, are essentially types that were current in the Northwest; but were not necessarily Northwestern products:



## PALSTAVES:

only 3 have been found in or on the peripheries of the 'Southwest': one from SERRA DA CAVEIRA, Conc. Grandola (Baixo Alentejo) (Taf.52, 424); two are said to come from 'MINAS DE HUELVA' (prov. Huelva) (Taf.52, 516 and 517) and are less like the characteristic Northwestern palstaves, eg. Monteagudo (1951) had noted the palstave (Taf.52, 516) as of 'onubense' type, distinct from his 'calaico' - northern - type.

## SICKLES:\*

two 'Central Portuguese' type sickles with ribbed blade and thick base (cf. MacWhite 1951, 76ff, Figure 22, 23) were found at SOBRAL DE VARZEA, Conc. Santiago do Cacem (Baixo Alentejo) (Schubart 1975a, Taf.52, 421 = MacWhite 1951 Lam.XXXV, 2 'Sobral de Varzca') and from MÉRTOLA, Conc. Mértola (Baixo Alentejo) (Schubart Taf.52, 337 = MacWhite Figure 22, 1, 'Mostola').

## RAZOR (?):

Schubart describes the CALDAS DE MONCHIQUE, Conc. Monchique (Algarve) tanged instrument (Taf.10, 46) as a razor, related to those found in the HUERTA DE ARRIBA (Prov. Burgos) hoard, of the 8th or 7th century (Schubart 1975a, 91). Another thick tanged razor/arrow-head is known from CABEZO DE ARRAYA, Navas del Madroño (Prov. Cáceres). Perhaps the CALDAS DE MONCHIQUE find is another of these hybrid forms, distinct from the HUERTA DE ARRIBA decorated razors (which are of general Rosnoën type - if not date: cf. Briard 1965, Figure 53).

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\* Schubart (1975a, 92) notes new finds of sickles in Central Portugal, from SAO MARTINHO, Conc. Rio Maior (Ribatejo) and COLES DE SAMUEL, Conc. Soure (Beira Litoral). The 6 sickles from the latter findplace were associated with a characteristic Portuguese flat-backed palstave and 4 socketed axes. The association of these socketed axes does not support his proposed 10th-century date for the sickles, since even in Somerset, from where he derives a t.p.q. of the 11th century, they continued to be used until the 8th or even 7th centuries (cf. Burgess 1974). The same is probably true of Scandinavia (cf. Butler 1963, 69).

## TRUNNION AXES:

One is known, as an isolated find, from the 'Southwest', viz. from SANTA BARBARA DE PADRÕES, Conc. Castro Verde (Baixo Alentejo); another is known from the Sado area, viz. from CASTELEJOS, Conc. Alcácer do Sal (Baixo Alentejo) (Schubart 1975a, 68-69: he mentions another find from the 'Evora' or 'Sintra' area, now in a private collection in Lisbon).

## SPEARHEADS:

Very few are found in the 'Southwest' (Schubart 1975a, 90): in the Algarve, spearheads were found at PORTELAS, Conc. Lagos (Taf.7, 30) and PORTIMÃO, Conc. Portimão (Taf.7, 77); another stray find comes from the EVORA area (Taf.52, 472); and an exceptional spearhead with solid cast midrib and decorated ovoid blade comes from SERRA DE BORRAZEIROS, Conc. Moura (Baixo Alentejo) (Taf.56, 410c). It is similar to those of the LA LAGUNA DE ALCAYAN hoard, Coristanco (Prov. La Coruña) (Almagro Inv. Arch. E.10 Lám.1, 1-3).

## SWORDS:

The only find within the 'Southwest' is from near the Iron Age castro of NOSSA SENHORA DA COLA, Conc. Ourique (Baixo Alentejo) (Schubart 1975a, 87, Taf.53, 324; Viana 1959): it is a worn example of a Carp's Tongue sword, ie. there are indications of ricassi and it would appear that the notching of the rivet plate was for re-use following damage to the original riveting-arrangement (as found on HUELVA swords too).

Two fragments of bronze sword blades with prominent mid-rib are known from the Castro of GIRALDO, Conc. Evora (Alto Alentejo) on the border of the 'Southwestern' cultural area (see Schubart 1975a, Taf.37, 483). There are two leaf-shaped swords (illustrated by Almagro 1940, Figure 17, 8-9; from 'Alentejo (Extremadura o Portugal)'; and Savory 1949, 152 gives similarly vague provenances) which according to Schubart probably come from a 'hoard' in the Evora area (Alto Alentejo) (1975a, 87, Taf.53, 467, 468).

Two swords of characteristic Carp's Tongue type come from SAFARÁ, Conc. Moura (according to MacWhite 1951, Lám.XX, 1-2; and Schubart 1975a, Taf.53, 410 and 410a; although Almagro 1940, Figure 19, 5 and 6, gives



the location as 'Alemtejo o Extremadura (sic.) (Portugal)'). Figure 14 shows the GIRALDO, NOSSA SENHORA DA COLA, the EVORA and the SAFARÁ swords, taken from Schubart's Tafel 37 and 53, together with another find from this general area, mentioned by Almagro (1966). It is one of the short sword/daggers with general Carp's Tongue features, from ELVAS (Figure 58, 2); it has deep rectangular ricassi.

All of these swords have parallels in the HUELVA hoard (eg. Schubart 1975a, 87) and in addition to the Balearic parallels for the solid hilted swords from HUELVA (eg. Almagro 1966, Figure 57, 4-10), there is one from ALCONÉTAR (Prov. Cáceres) (Almagro 1966, Figure 57, 3). Another find of a leaf-shaped sword, with U-shoulders, is known from MONTIJO, 8 km downstream from Mérida (Prov. Badajoz) (Almagro 1943).

For 'Southwestern' Bronze Age Phase II, we are fortunate in having comparative evidence for the metalwork in the form of relief decorated slabs which formed part of the burial structure, ie. as covering slabs of stone cists. It is important to remember that the metal objects described above do not come from graves and that these decorated slabs showing the use of swords, halberds, and axes are found in the graves instead of the actual bronze weapons. As Schubart has recognised during Phase I, status differentiation is visible in the contents and construction of the central graves at ATALAIA (Schubart 1975a, 165-6); and he regards the relief decorated slabs as indicative of a greater degree of social ranking in Phase II. These depictions of bronze weapons are clearly indicators of elite status; the fact that depictions rather than bronzes are included in the burials must imply firstly the recognition of the status achieved by possession of a bronze weapon, and secondly familiarity with bronzework of this type, and thirdly, the extreme rarity of the bronze objects.

Almagro (1966) distinguished the 'Alemtejano' group of slabs, whose distribution corresponds to that of Schubart's 'Southwestern' area: cf. Almagro (1966 Figure 1) and Schubart (1975a Karte 33) Figure 15. The relief carvings on the slabs depict, when intact, a sword and what is generally described as an 'anchor'-like object ('idols' according to

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*Figure 14:* Swords from the 'Southwest' (Schubart 1975a, Tafel 37, 483: GIRALDO; Tafel 53, 324 NOSSA SENHORA DA COLA, 467 and 468 EVORA, 410 and 410a SAFARA) and ELVAS (Almagro 1966, Fig. 58, no.2). Not to scale.



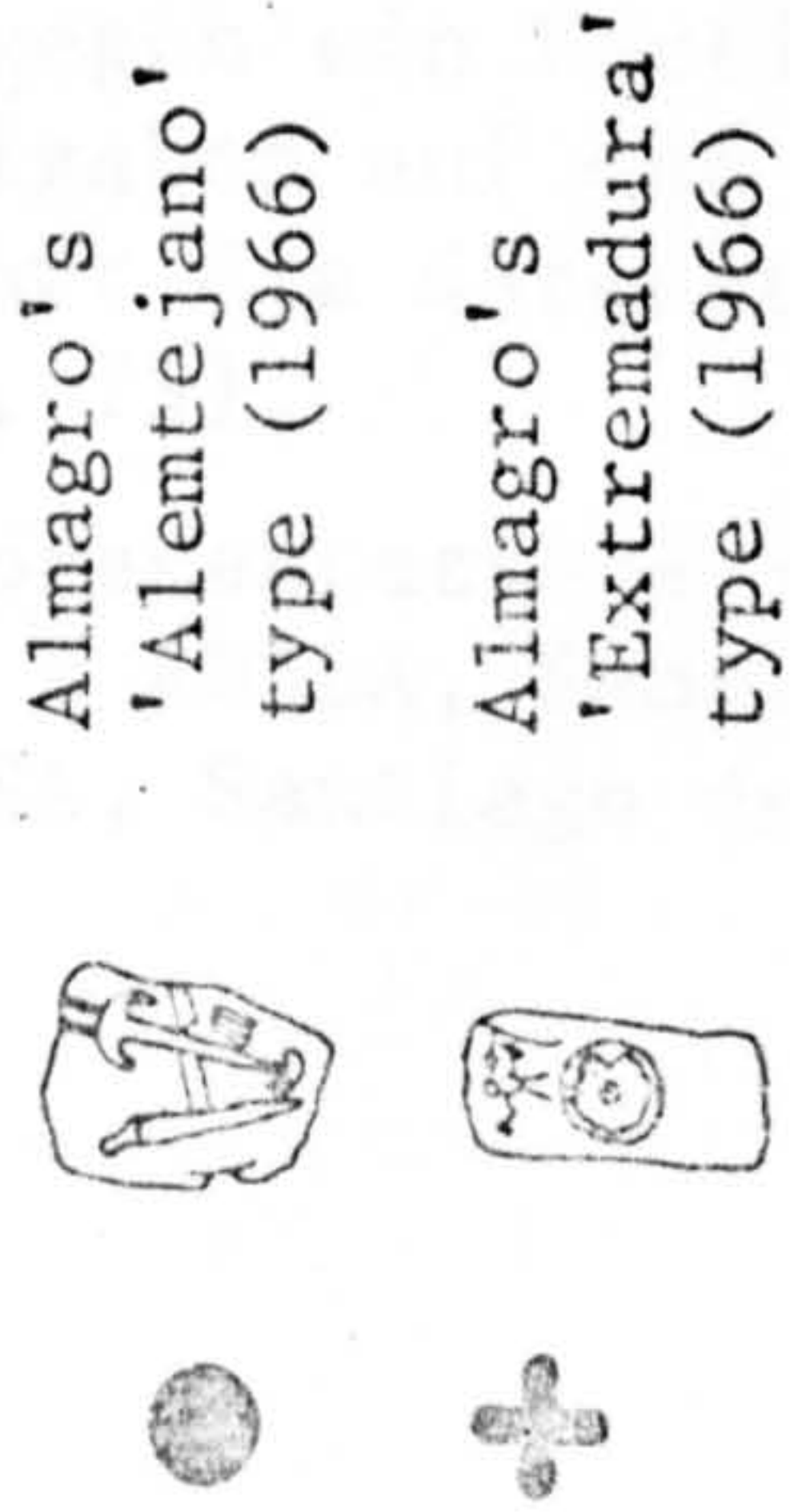


Figure 15: Distribution of decorated slabs. (Schubart 1975a, Karte 33)

Almagro 1966, 135). It is possible that these 'anchors' are scabbards with chapes like - but not necessarily connected with - the winged Hallstatt C chapes found in Atlantic Europe, eg. DEFESA, Conc. Santiago de Cacem (Baixo Alentejo) (Almagro's Figure 16, p.58). The consistent arrangement of a plain band horizontal to the sword and 'anchor' suggests that these may be representations of the functional grouping of belt, sword and scabbard. Some depict halberds, eg. ESTELA DE ABELA, Conc. Santiago de Cacem (Baixo Alentejo) (Almagro Figure 19, p.64) and others hafted, or simple, flat axes, eg. ESTELA DE ASSENTO, Sta Vitoria, Conc. Beja (Baixo Alentejo) (Almagro Figure 31), and TRIGAXE I (Almagro Figure 9) Figure 16.\* Figure 17 (Schubart 1975a, Karte 17) shows the dominance of representations of swords over finds of swords (see Figure 16\*\* (representations) and Figure 14 (swords, after Schubart 1975a, Tafel 37 and 53, and Almagro 1966).

The situation in the 'Southwest' can be summarised as follows: bronze imports - and their representations - are scarce and are limited to items of high status categories. This coincides with the development of a more elite stratum of society in this area that controls access to their use. Furthermore, these developments appear to be closely connected to political control over and the more intensive exploitation of copper ores, indicating that new sources of power, based on wealth and converted

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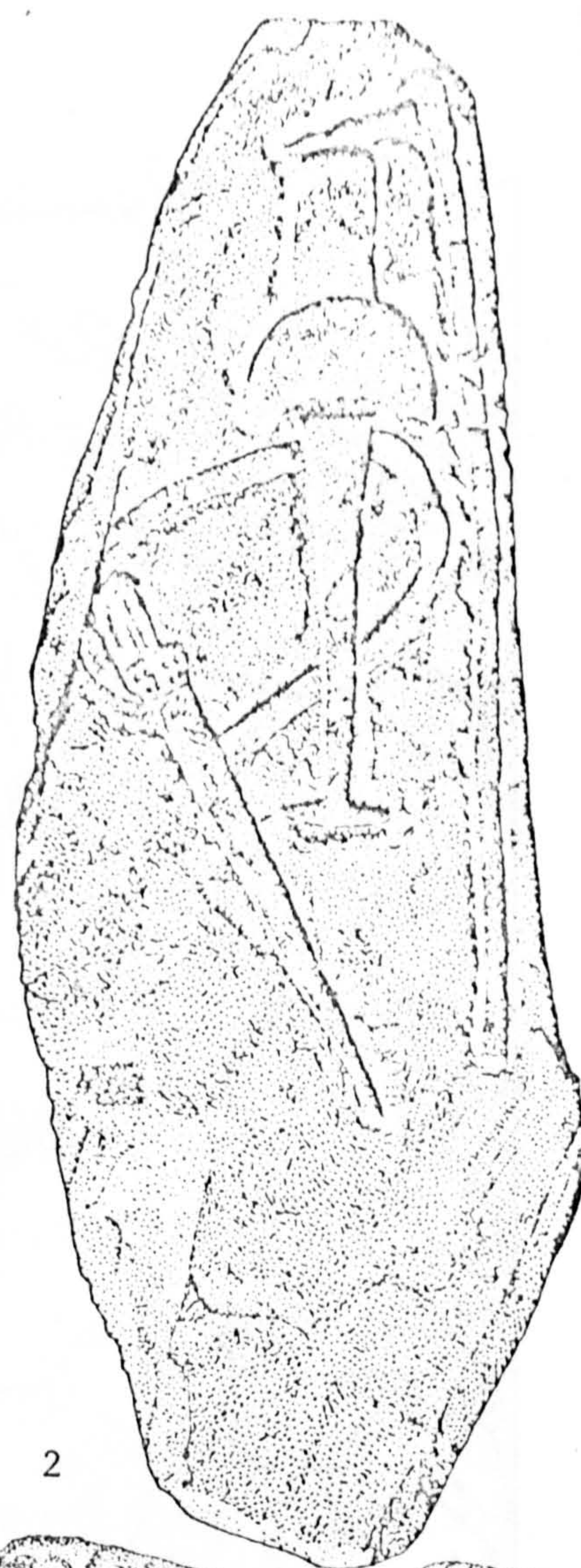
\* No attempt has been made here to deal fully with the complexities and variation of the slabs. This has been done by Almagro 1966 and 1968; Schubart 1975a makes some useful comments and refers to the new finds; Savory (1968, 211) considers these slabs to be of E.B.A. date, which is not acceptable, especially in view of Schubart's re-analysis of the 'Southwestern' material, in particular his recognition of the long period of use of essentially 'Early Bronze Age' metal types, such as daggers, in the graves. Schubart notes: 'Das Fehlen von Nietdolchen auf den Stelen des Alentejo ist kein Beleg gegen ein Fortleben bis in diese Zeit, da die charakteristischen Grabbeigaben auf den Stelen ohnehin nicht dargestellt sind und umgekehrt die dargestellten Dinge nicht in Gräbern vorkommen.' (1975a, 75).

\*\* The representations in Figure 16 are the slabs from: 1 TRIGAXES I, Beja; 2 ABELA, Santiago de Cacem; 3 ASSENTO, Santa Vitoria, Beja; 4 DEFESA, Santiago de Cacem. No.4 is c.1.16 x 0.65 m.

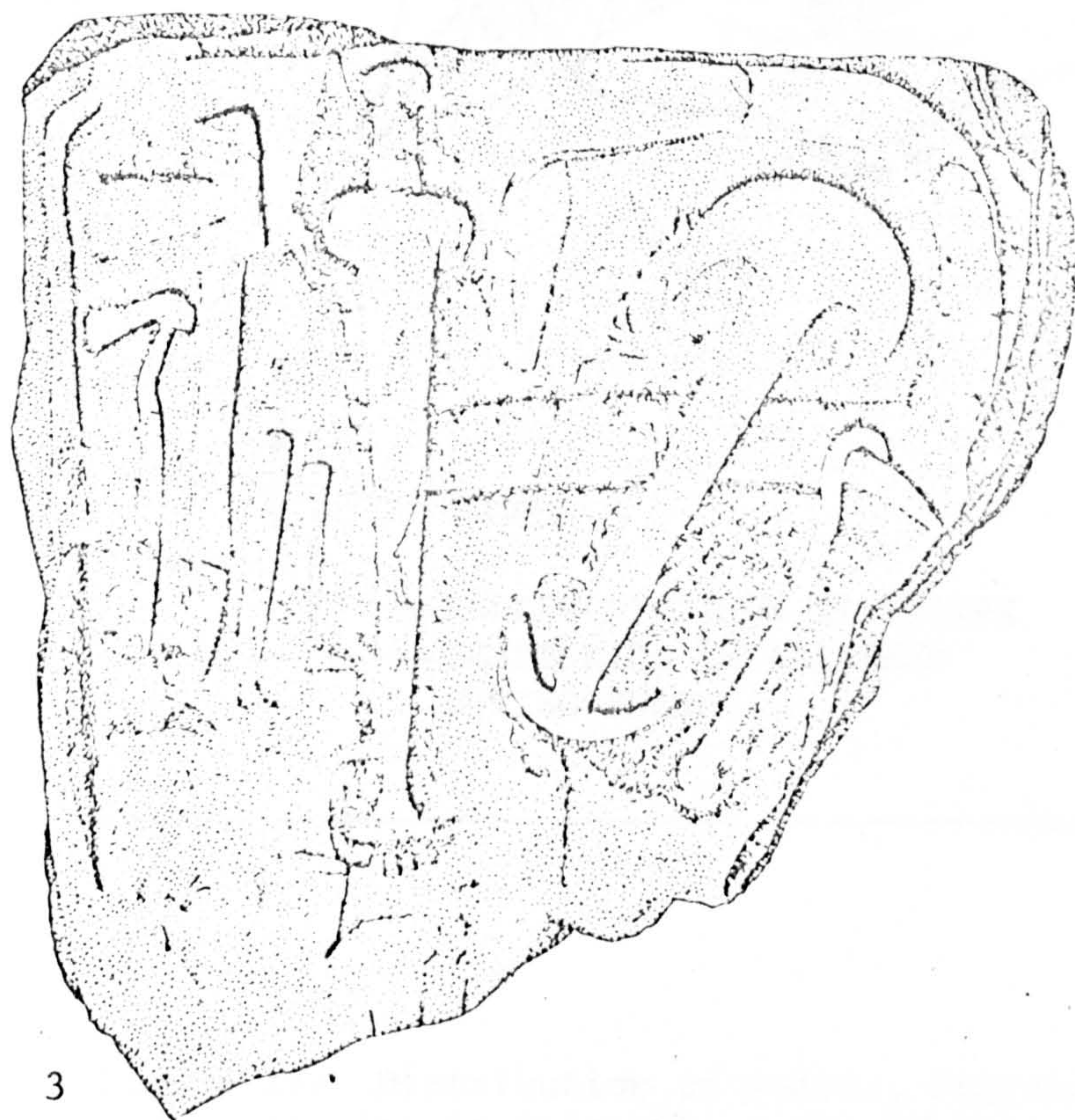




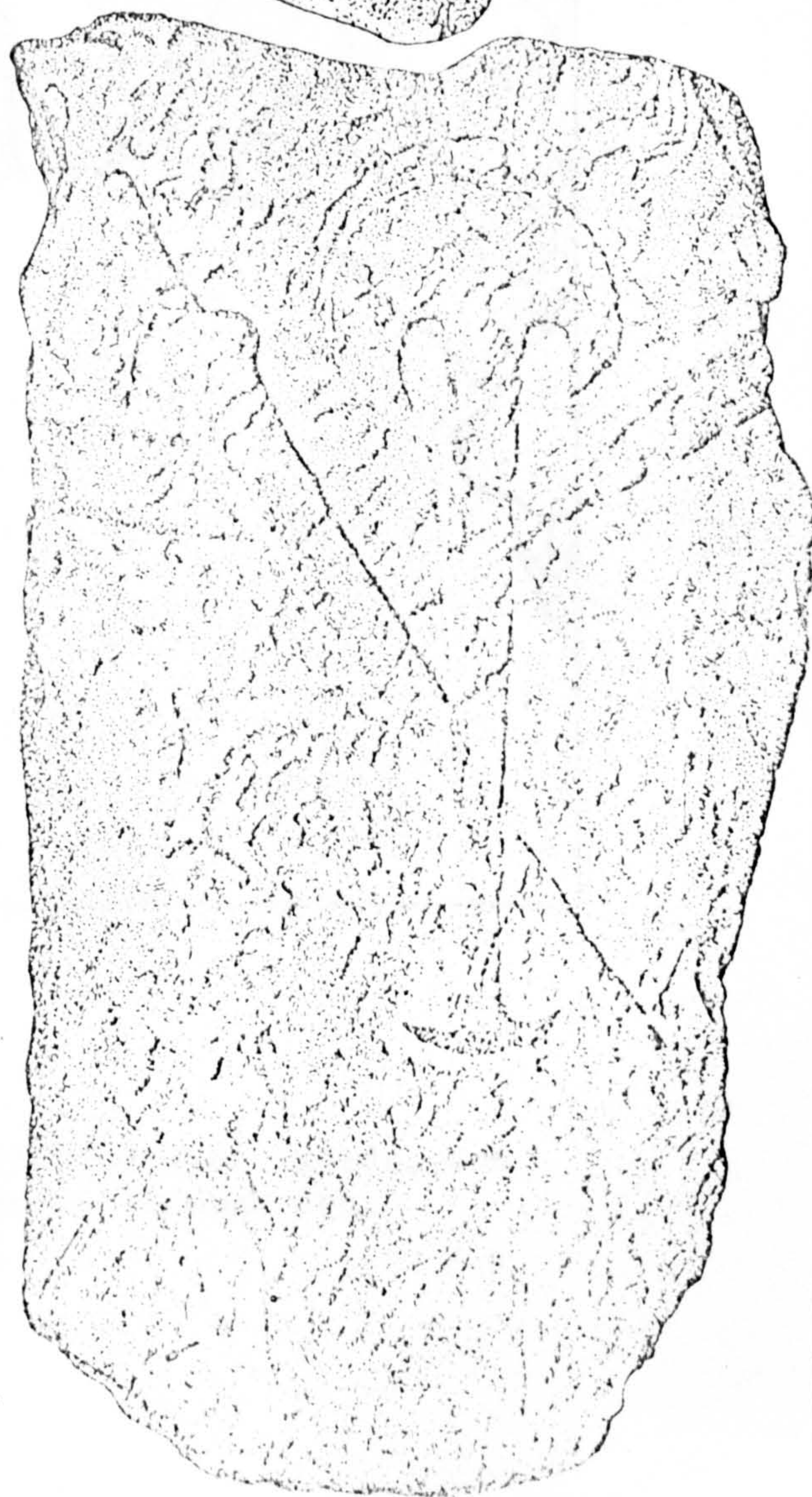
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2



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4

Figure 16: Examples of Almagro's Alemtejano type slabs.  
 (Almagro 1966: 1 Fig. 9; 2 Fig. 19;  
 3 Fig. 31; 4 Fig. 16)



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Figure 17: Distribution of swords, representations of swords, and new cemeteries in Phase II of the 'Southwestern' Bronze Age. (Taken from Schubart 1975a, Karte 28)



into prestige items, were derived from control over copper. But, the access to bronze products was limited to the extent that representations carved on slabs came to take on the status that possession of a copper or bronze weapon signified. Another indication of the scarcity of bronze products in this area is given by the leech pendants found in Western Iberia, eg. in the 8th century RÍO SIL hoard, at SANCHORREJA, ALCÁCER DO SAL (Alto Alentejo), AZOUGADA, Conc. Moura (Baixo Alentejo) (López Cuevillas 1955; Schüle 1969a, Karte 17). In the 'Southwest' there are only two finds: both from the area of CALDAS DE MONCHIQUE (Algarve) in the stone cist necropoli of ALCARIA and VAGAROSA: they are exceptional because these leech pendants are made of clay!\*

It has been proposed here that the exploitation of copper in the 'Southwest' during Phase II had been directed to the Northwest and that a certain element of the population had benefitted from that connection in order to assert its rank, already appearing in Phase I. Although Schubart (1975a, eg. 70) recognised the importance of the copper resources in the 'Southwest' and suggested that an element of the local population may have been specialised in copper extraction and exchange, he does not deal with the external relations or economic organisation of Phase II. In fact, he proposes continuity in the Mediterranean (Southeastern) relations that had dominated Phase I, basing his argument on the glass beads found in ATALAIA and the putative metal prototype for the ribbed vessels; he regards the carved slabs of ultimately Eastern Mediterranean (Mycenaean) inspiration. With this we cannot agree, especially as he sees the Atlantic relations of the 'Southwest' as far less significant:

'Abgesehen von leichter austauschbaren Metallformen sind die kulturelle Beziehungen zwischen diesem stark atlantische bestimmten Raum und dem Arbeitsgebiet geringer.'

(1975a, 160)

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\* The possible use of these leech pendants in 6th or even 5th century contexts is suggested by finds from MONTE DE A-DO MEALHA-NOVA, Ourique: they come from a disturbed area of graves and their precise context is uncertain (Alves Dias et al 1970).

Schubart appears to believe, following Maluquer (1960), that the contents of the HUELVA hoard represent a collection of bronze implements in general use in the Southwest, including the Huelva hinterland, when the use of iron made these bronze objects superfluous. This is difficult to accept, especially since he (like Schüle 1969a) dates the hoard to the 9th or 8th centuries and therefore the 'Alemtejano' type slabs to the 10th, 9th and possibly even 11th centuries, eg.

'Es ist deutlich, dass die Formenwelt der Reliefplatten des Alentejo-Type einem Zeithorizont entspricht, der vor demjenigen des Huelva-Horizontes anzusetzen ist, dessen Datierung in das 9. bzw. das 8. Jahrhundert bereits oben behandelt wurde.'

(1975a, 108)

But there is certainly no evidence for iron using in the 'Southwest' by the 9th or 8th centuries; and the paucity of metal-finds in the 'Southwest' does not support his view that this was where material of the sort represented in the HUELVA hoard was in use in great quantities. It is important to note the similar absence of pre-Phoenician bronze-working in the Huelva area (eg. Fernández 1975), where even in 'Bronze I' metal was very scarce (Garrido 1975; del Amo 1975). Schubart does, however, suggest that the palstaves reached the 'Southwest' 'im Zusammenhang mit der Erzgewinnung und dem damit verbundenen Handel...' (p.70) which is exemplified by the MONTE SA IDDA hoard in Sardinia. In general, he notes that the 'razor', palstaves, trunnion axes and sickles connect the 'Southwestern' Bronze Age with bronze finds in Western Iberia (1975a, 91).

It is suggested here that the exploitation of copper in the south, and its ultimate use in the Northwest, was intercepted to some extent by the Sado estuary-Tagus populations. We have already noted the presence of Tagus style pattern-burnished wares in the settlement at MANGANCHE, near the mines of Aljustrel, and the appearance of pattern-burnished wares among the indigenous materials in the castros of the Evora area. Schubart has noted that a number of cemeteries established during 'Southwestern' Phase II are north of the original centres, ie..



'Es scheint so, als ob in der Stufe II das durch charakteristische Grabfunde bezeichnete Gebiet der Südwest-Bronzezeit nach Norden bis in die Nähe von Evora ausgedehnt wird, während andere Bereiche, insbesondere das Ostalgarve bisher keine Funde dieser Stufe geliefert haben oder an dieser später Entwicklung nicht mehr teilnehmen.'

(p.168)

On the map, *Figure 17*, it is clear that the new cemeteries of Phase II are situated in the Western extremity of the peninsula, in the Western Algarve, or in the northern part of Baixo Alentejo, ie. towards Evora and the Sado/Tagus area.

We have stressed the distribution of exceptional material during both Phase I and Phase II of the 'Southwestern' Bronze Age in the Alcácer do Sal area, at the mouth of the Sado, ie. the CASTELEJOS, Conc. Alcácer do Sal, trunnion axe, and also the golden armring with thickened ends (cf. MacWhite 1951, 76-77 Lám.IX and XXV, Figure 21 - showing their Atlantic distribution in Iberia). From SÃO MARTINHO, a chain of 7 golden spirals found together with 6 golden tutuli with pairs of perforations are considered to belong to Phase II by Schubart (1975a, 94). (Savory (1968, 208ff, Figure 68) believes them to be of E.B.A. date.)

In general, a number of specialised bronze types appear to be distributed within Central Portugal: eg. MacWhite's Portuguese sickles, flat-backed palstaves, socketed double-looped axes (1951, Figure 23, Figures 17-19) and Savory's 'Porto do Mos' type daggers, of which 7 finds, all along and north of the Tagus, are shown in his Figure 83 (Savory 1968, Figure 74E and 83). This appears to be the Southwestern dagger type identified by MacWhite too (1951, 80).\* Also, ferrules and

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\* It is very difficult to determine the exact location of MacWhite's finds when the same find is described as coming from 'Serrado Monte Junto' (Figure 19) and 'Serra de Monte Junto' (p.68). As in the case of the confusion over the origin of the swords, described above, the fault is not MacWhite's but appears to derive from the 'fondos secretísimos' of the M.E.P., Belem (cf. MacWhite 1951, 80).

spear-heads are more common in Estremadura than in the 'Southwest' (Schubart 1975a, 90 and Ann. 454).

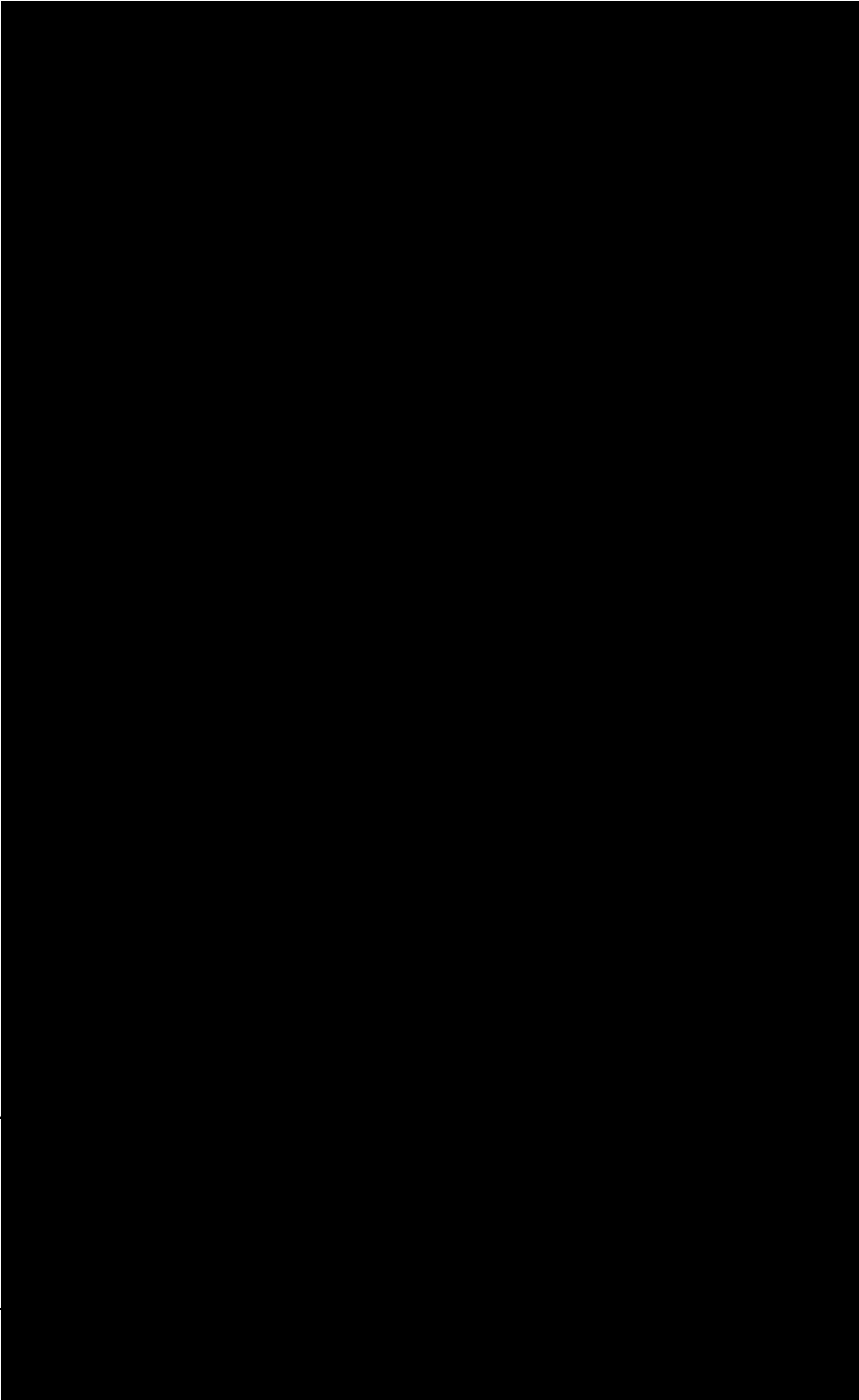
A Central Portuguese flat-backed palstave was found in a hoard, just south of the Mondego at ARGANIL (Beira Litoral) together with a ring-socketed sickle and a double-looped palstave (Savory 1968, 225 and Figure 78c and 78d, for the first two types). The only other socketed sickle of Atlantic type from Iberia is said by MacWhite (1951, 80) to come from 'BOCAS'. Schubart (1975a, 92) mentions the recent find of sickles in Central Portugal at SAO MARTINHO, Conc, Rio Maior (Ribatejo); and at COLES DE SAMUEL, Conc. Soure (Beira Litoral), where 6 sickles were associated with 4 socketed axes and a characteristic Portuguese flat-backed palstave.

This concentration of Central Portuguese types, south of the Mondego and north of the Sado, may represent the products of an independent bronze-working tradition. See Figure 12. Its existence can be related to its intermediate location between the tin ores in the north, the copper ores in the south and the lead ores of the interior; it would therefore be able to secure supplies through involvement in the distribution and transport of these materials. In particular, the transportation of copper and lead to the Northwest can be proposed as the basis upon which an independent bronze production centre could be established. The initial products were easily produced by means of a single valve mould, as Schubart has suggested for the flat-backed palstaves (1975a, 91), ie. the sickles, daggers and flat-backed palstaves. The production of the distinctive double-looped socketed axe may have been a later development, ie. contemporary with the dominance of socketed axes in France and Britain and used here instead of the large double-looped palstave that was produced in the Northwest. Savory (1968, Figure 77) shows some overlap between the Mondego and the Minho of both areas, ie. the double-looped palstave area in the Northwest, and the double-looped socketed axe and flat-backed palstave area of Central Portugal.



Significantly, the Central Portuguese area includes the greatest density of gold ornaments in Savory's E.B.A. and M.B.A. ie. the Tagus-Sado coastal zone (Figure 68). It should also be noted that on Blance's map of gold and silver sources, the Tagus/Sado and the Northwestern areas show the greatest concentration of gold sources (Blance 1971, Karte 3) See Figure 7.

Directly in the hinterland of this Central Portuguese area are the 'Extremadura' type of engraved stelae, defined, illustrated and discussed by Almagro (1966); one is illustrated here - Figure 18. It is well known that the representations on these stelae (which do not appear to be parts of burial monuments) include many Northern Atlantic elements, such as the horned helmets, the swords, and even the depiction of people and wagons. On the other hand, although the V-notched shield was a Western European development (cf. Hencken 1950 and Coles 1962), its origins are in the Eastern Mediterranean. Similarly, the 'fibulae' are of Eastern or Central Mediterranean origin: it is also possible that some of these D-shaped 'fibulae' represent bows, cf. the Nuraghic statuettes which sometimes carry D-shaped bows, eg. a figure with a D-shaped bow, wearing a horned helmet, is illustrated by Taramelli (1914, Figure 33). The engravings on these stelae appear to combine Atlantic and Eastern elements. So far, the Guadiana, Extremadura area is not known to have many bronzes: the CABEZO DE ARAYA, Navas del Madroño (Prov. Cáceres) hoard and the two swords, mentioned above, are exceptional. It would appear that the inhabitants of this area, although in contact with Northern and Eastern bronzework, did not themselves have access to it: a similar situation, in fact, to that found in the 'Southwest'. Yet, in the coastal zone and at points along the inland routes, viz. Evora and the Guadian, outstanding goldwork of Atlantic tradition - but Iberian manufacture - are found, indicating an element of population with access to the finest products of the indigenous Atlantic metalworking centres, probably in the Northwest and Extremadura where alluvial gold occurs. The reason why this area was in contact with the coastal zone was presumably due to its lead deposits, to which both the Central Portuguese and Northwestern bronze industries would have had to maintain access. It is suggested here that the Central Portuguese - Tagus/Sado -





area played an important role in distributing this lead, as it did with the Southwestern copper; and the two flat-backed palstaves found in Northern Ireland, indicate the extent of this area's involvement with the Atlantic sphere (MacWhite 1951, 68 and Figure 17).

Coles has suggested that

'The three types, Kourion-Megiddo "fibulas de codo", V-notched shields, and cauldron influences leading to the Class A Atlantic production must have reached the Western Mediterranean in the 8th century'

(1962, 159)

from where a route through Southern France to the Atlantic is suggested by the 4 'Sicilian' shaft-hole axes found in Western France, and one from Hengistbury Head; a second route through the Straits of Gibraltar along Atlantic Iberia and across the Bay of Biscay to Britain (which the Sicilian axe from Orense would substantiate) is also proposed:

'The other route through the Straits and around the Iberian peninsula is also well documented, primarily from the hoard dredged up in the Ría de Huelva which contains among other things Irish spearheads, Atlantic carp's-tongue swords and fibulae of Kourion-Megiddo type. The Huelva hoard shows that connections were in existence between Britain-Ireland and Iberia at this time, and the knowledge for A cauldrons and notched shields could be transmitted northwards along the Atlantic route. The influences for Class B cauldrons seem to be a later and perhaps unconnected event, carried to the north possibly with the shaft-hole axes and elbow-fibulae from Sicily, along the other route. But the two cannot be completely divorced, because finds off the main routes occur. From north-western Spain there is, in addition to the Hío and Carbárceno Class B cauldrons, now a shaft-hole axe, and from Castelnau-le-Lez near Montpellier in south-west France there apparently comes an estela with the characteristic V-notched shield, spear and wheels carved upon it. But however these Mediterranean connections were transferred to the Atlantic route, the knowledge

for the V-notched shield without much doubt reached Britain-Ireland from south-western Iberia, in all probability with Class A cauldron ideas.'

(Coles 1962, 159-60)

The same conclusion is reached by Hawkes (1969), who dates these Eastern Mediterranean/Iberian/Atlantic relations to the second half of the 8th, early 7th centuries.

Let us now try to people these routes: it has been proposed above that during the 8th century the Armorican bronze industries had increasingly come to depend on the Northwestern centre for copper as well as tin; an intermediary role in the distribution of copper from the Southwest and lead from the northern edge of the Sierra Morena was played by the inhabitants of the Tagus-Sado area, known from their distinctive pattern burnished ware, which is found inland on sites along the Tagus, and later from its distinctive bronze products. Both the Northwest and the Tagus-Sado centres had gold resources and it is significant that the major gold finds of the 9th to 7th centuries are from the Central area of Atlantic Iberia: cf. the gold collars (Hawkes 1971, Figure 3; Almagro Gorbea 1974a and b), the bracelets (MacWhite 1951, Figure 21), especially in the Northwestern, Central Portuguese and Guadiana areas. An exceptional hoard, probably of 8th century date, from BODONAL DE LA SIERRA (Prov. Badajoz) comes from south of the river Ardila, a tributary of the Guadiana, not far from Moura. It includes pieces of gold ingots and terminals of torques of a type commonly found in Ireland, but also known in Britain and Western France (Almagro Gorbea 1974c).\*

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\* Briard (1965, 150) has commented on the difficulty of dating the manufacture of gold jewellery within the M.B.A. and L.B.A. in Armorica. The same obviously applies to Iberia: in addition, the problem of the deposition in hoards of material which might have been manufactured - or imported - some time earlier than the hoard is deposited has been noted in the case of collections of bronzework and obviously applies to the goldwork too.



Del Amo (1973) has commented on the noticeable Guadiana-Tagus distribution of the 'jarros tartésicos', which was either anticipated by or contemporary with the occurrence of the characteristic Guadalquivir pattern burnished ware - and even forms, such as the 'soporte' - at MEDELLÍN (Prov. Badajoz).\*

There appear therefore to be two main routes by which copper from the south is reaching Central Portugal and ultimately the Northwest and its Atlantic trading partners, viz. along the Sado to the Alcácer do Sal area; and along the Guadiana, to the Moura region (and from there possibly to more northerly centres) and then westward to the coast, probably reaching the coast at Alcácer do Sal from Moura and the Tagus estuary from the Badajoz reaches of the river. The lead from the area to the south of the Guadiana (Vilá Valentí 1968, Figure 17) could be directed along the same route. All the evidence available suggests that the Southwestern copper is being sent northward; there is no evidence for any bronze production in the Southwest prior to the establishment of the Phoenicians on the South coast of Spain.

Thus, when the Phoenicians entered the Iberian trading network, the orientation of copper, lead and gold exploitation was essentially Atlantic. It fed the elaborate Northwestern bronze industry, and its Central Portuguese intermediary, with raw metals. The Northwest sustained its own growth and supplied its Atlantic partners with tin and copper.\*\*

\* Unfortunately the finds, from a hill-top settlement on the left bank of the Guadiana, have not been found in situ, but were recovered during the excavation of a Roman theatre. Del Amo mentions that Almagro Gorbea found pattern burnished ware in the lowest levels of his excavations at Medellín too.

Rivero de la Higuera has published similar Guadalquivir style wares from in and around the BOQUIQUE cave (1972-73).

\*\* Hawkes's (1969) interpretation of the L.B.A. in Iberia - based on the existence of the 'Tartessian' southwestern bronze-working centre, somewhat surprisingly attributes the Northwest with a 'contribución mínima' in Atlantic relations of the 8th and 7th centuries: this would appear to vindicate some aspect of his interpretation of the Ora Maritima.

It is suggested here that by the end of the 8th century, or the early part of the 7th, the Phoenicians were tapping the existing regional organisation of metal supplies by operating along the Atlantic coast, particularly in the Central Portuguese area. From ALCÁCER DO SAL and SANTA OLAYA, Figueira da Foz (Beira Litoral), we have evidence of their involvement in these coastal centres by the 7th century. It is in terms of Phoenician re-integration of the Atlantic with the Mediterranean regional systems of the late 8th and 7th centuries that we must examine the HUELVA hoard, as an indicator of an early phase of this Phoenician activity, and the MONTE SA IDDA and FORRAXI NIOI hoards in Sardinia as evidence of a later phase of the 'linking-up' of Atlantic and Mediterranean systems, that Coles (1962) and Hawkes (1969) believe began via Iberia during the 8th century.

By the late 7th or early 6th century, the crisis we have observed in Armorica - in the axe hoards - can in part be related to the increasing domination of the Iberian copper flow by Phoenicians in the south of Spain. The survival of the Northwestern bronze production centre into the 7th and 6th can however be expected due to the attraction of the tin resources to the Phoenicians. The as-cast state of the large double-looped palstaves and their occurrence in hoards along the coast implies that they continued to be of use, and their presence in the MONTE SA IDDA hoard confirms it.



## B - The Phoenicians in Iberia

### 1 The Western Phoenician sphere

Western Phoenician studies have always been dominated by the Tarshish/Tartessos issue: it has therefore to be briefly discussed here too. The controversy over the identification of the biblical Tarshish and the Classical Greek Tartessos can be said to have begun with the publication by S. Bochart of 'Phaleg ... Chanaan' in 1646, following which Phoenicians were identified throughout the Mediterranean world at virtually all periods of time. According to Niemeyer (1972), the most extreme views were held by Movers (1856) who saw the Phoenicians as the only 'civilised' people in the early 1st millenium. Following Reinach's refutal of Phoenician presence at Troy and Mycenae, Beloch came to represent the pro-Greek and anti-Phoenician faction in the argument over 'cultural supremacy' and primacy in the westward expansion (eg. Beloch 1913, I part 2, Chs.VII and XII).

Meyer's more reasonable views (1931, II part 2, Ch.II, 90-105)\* were not heeded and the 19th-century dispute has been carried on ever since. García y Bellido (1934, 1942, 1953), Carpenter (1958, 1964, 1966), Forrer (1953), Frézouls (1955) and others supporting Beloch; and Albright (1941, 1961), Bosch-Gimpera (1952), Cintas (1950, 1970), Bisi (1970), Blázquez (1968, 1969, 1975), Niemeyer (1972) and others promoting Phoenician primacy in the West, and in particular, an early expansion date, to correspond with the traditional foundation dates.

As noted by Niemeyer (1972), the arguments of the former faction are based on attempts to show the inaccuracy of the ancient authors' calculations, usually in terms of generations, backed up by the absence of

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\* 'Wir kommen also zu dem Ergebnisse, dass Hellenen und Phoeniker zeimlich gleichzeitig in das westliche Mittelmeer gelangt sind. Auf Sicilien, in Italien, an der keltischen Sudkuste waren die Hellenen die ersten; in Libyen, auf Sardinien, in Tartessos die Phoeniker... Da nun die griechische Kolonisation des Westens nicht vor dem VIII. Jahrhundert begonnen hat, so wird auch der Beginn der phoenikischen Kolonisation nicht wesentlich früher angesetzt werden dürfen.' (Meyer 1931, II part 2, Ch.II, 253).

archaeological evidence for Phoenician activities in the 12th century in the Western Mediterranean. Those who argue for the acceptance of the traditional foundation dates refer to 'perishable material', or the presence of small Phoenician trading communities within indigenous settlements as the explanation for the absence of material evidence for the Phoenicians' initial western foundations (cf. van Berchem 1967). Albright, an arch-proponent of an early date of Phoenician expansion, recognised that even if the Sardinian inscriptions, including the NORA stone, are of 9th century date\*, the foundation dates of UTICA and GADES are probably c.100 years too high (1941).

In Part I A, section 3, the Old Testament references to 'Tarshish' have been discussed, as well as the references to the 'ships of Tarshish' and the various interpretations of the meaning or location of 'Tarshish'. The persistent attempts by serious scholars of the orient, and occident, to locate Tarshish in Iberia are a consequence of the similarity of the word 'Tarshish' with the Greek word 'Tartessos'. The many references by Greek writers to Tartessos, or the Tartessians, can be found in the Fontes Hispaniae Antiquae, more briefly referred to by Blázquez (1968, 1969), Maluquer (1970c) and García y Bellido (1941, 1948, 1952).

The earliest references to Tartessos are from Herodotus, The Histories IV, 152, in the context of Ionian, in particular, Samian history and the account of the establishment of a colony by Thera:

'... a Samian vessel bound for Egypt, under the command of a man called Colaeus ... resumed their voyage to Egypt [from Platea]... Easterly winds, however, prevented them from getting there, and continued so long that they were driven away to the westward right through the Pillars of Heracles until by a piece of more than human luck, they succeeded in making Tartessus. This place had not at that period been exploited, and the consequence was that the Samian merchants, on their return home, made a greater profit on their cargo than any Greeks ...'

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\* This date is not accepted by most authorities, eg. Boardman 1964, 219; Guido 1963, 193; Carpenter 1966; but see Niemeyer 1972, with references.



Part of the profit was used to make a dedication in the temple of Hera, and the episode marked, according to Herodotus, the beginning of the friendship between Samians and the people of Cyrene and Thera. Herodotus' account of the establishment of an alliance and the astuteness of Samian traders has been the basis of the recent identification of 'Western Phoenician' engraved ivory combs among the finds in the Heraeum of Samos by Freyer-Schauenburg (1966). She regards this, together with the evidence of engraved ivories found in Spain, as convincing evidence of the establishment of Phoenician ivory-carvers in Iberia in the late 2nd millenium, ie. their tradition of engraved ivory is represented by the 8th and 7th century finds in Southern Iberia. Täckholm has disputed this thesis, point by point (1975); but Aubet (eg. 1974b), Niemeyer (1972) and others accept it.\*

In a passage dealing with the Phocaeen/Persian conflict, Herodotus writes (I, 163):

'The Phocaeans were the first Greeks to make long sea voyages; it was they who showed the way to the Adriatic, Tyrrhenia, Iberia, and Tartessus. They used to sail not in deep, broad-beamed merchant vessels but in fifty-oared galleys. When they went to Tartessus they made themselves agreeable to Arganthonius, the King, who had ruled the place for eighty years, and lived to be a hundred and twenty. Indeed, this person took such a fancy to them that he asked them to quit Ionia permanently and settle wherever they liked on his land; the Phocaeans, however, refused the offer, whereupon the king, hearing that the Median power was on the increase in their part of the world, gave them money to build a wall round their town. And he must have given a great deal, for the wall at Phocaea is of pretty considerable extent, and constructed of large stone blocks well fitted together.'

(Translated by A. de Sélincourt, Penguin Classics)

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\* There are many questions one could raise as to the value of trying to locate this 'virgin market' to which a merchant ship was 'blown' the length of the Mediterranean; the credibility of an account by merchants with a profitable cargo; and even the importance to Herodotus of the details of this voyage within the context of Samian history.

The fallacy of Phocaeen leadership in Greek long-distance trade and colonisation is now generally recognised. We can also question the rest of the account, especially as the context of its narration is Phocaeen expansion and competition with Central Mediterranean powers, 'Tyrrhenians and Carchedonians made common cause against them' (I, 166), leading up to the battle of Alalia: tales of a wealthy barbarian backer would have boosted the morale of both Eastern and Western Phocaeans in the 6th century.

This account has been the foundation of many fabulous elaborations, for example Schulten (1972, eg. p.13, and 1955) suggested that in the Guadalquivir valley there flourished:

'... die Silberstadt Tartessos, das Tarsus der Bibel, die wohl um 1200 v.C. von den Tyrsenern aus Kleinasien gegründet wurde, ganz Andalusien beherrschte und bis 500 v.C. bestand. Durch Tartessos wurde das Baetistal das westliche Gegenstück zu den uralten Reichen, die am Unterlauf des Euphrat und Tigris und des Nils entstanden...'

(p.196) \*

García y Bellido (1953) describes the extent of what he envisages as a Tartessian 'confederacy of city-states': 'En suma una extensión que vendría a ser algo mayor que la de la provincia romana Baetica y aún que la región actual andaluza' (p.158).

The presumed identification of the biblical Tarshish with the Greek Tartessos (eg. Bonsor 1899, 10; Meyer 1931, 96; Jullé 1969; Garrido 1975) has been denounced by Täckholm (1965, 1969, 1975) who admirably demonstrates the fallacy of the correlations\*\* based on

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\* Pericot (1969) reminds of the extent of Schulten's 'romanticism' in referring to his comparison of Tartessos with Atlantis.

\*\* Since Bochart first proposed the Tarshish/Tartessos correlation, there have been attempts to establish the Phoenicians in Spain in the 11th and 10th centuries and regard Iberia as the source of much of Solomon's - as well as the later Assyrian kings' - treasures. The views of Cintas, Garbini, Niemeyer and others are summarised by Täckholm (1975, see note-1, p.41).



references to Tarshish in the Old Testament, and to 'Tarsisi' in Essarhaddon's inscriptions (ie. as a source area of material for the building of his palace). Täckholm notes that

'... wir in der Tat nichts darüber wissen, ob die Phönizier Spanien oder einen Teil davon Tarsis nannten: wir wissen nur, dass die Griechen es Tartessos nannten.'

(1975, 48)

Schulten first 'located' Tartessos on the Coto de Doña Ana, but when excavations there were unsuccessful, he believed it to be nearer Sanlúcar (eg. 1972, Mapa II). MESAS DE ASTA, or 'Mesa de Hasta', near Jeréz de la Frontera, the Roman town of HASTA REGIA, is - according to 'la tesis tradicional española' the city of Tartessos (as discussed by García y Bellido 1953, 161). The island of Saltes, off the coast of Huelva, has frequently been regarded as the most appropriate location for Tartessos, ie. in the estuary of the Odiel and Tinto rivers. Luzón (1962) has revived the location of Tartessos in the hills to the north of Huelva: he believes that the important 'centro de comercio de metales' is unlikely to have been situated in the Guadalquivir valley since the natural communication routes from the mining areas in the Huelva hinterland, Río Tinto, Tharsis, etc, led more easily to Niebla, and from there along the Tinto to Huelva; the mountain route from Río Tinto to the Sevilla area is difficult. Blázquez (1969, 1975) supports Luzón's identification of the Tinto as the Tartessos river and believes with him that the city is still to be found nearby. For Cintas (eg. 1970), Cádiz is Tartessos.

Both Maluquer (1969b and 1970c) and Carriazo (1973, 45ff) believe in a strong indigenous element in the evolution of the 'kingdom of Tartessos'. Carriazo recognizes Celtic and orientalizing influences. Maluquer sees the origin of the Tartessian 'empire' in the evidence for trade with the eastern Mediterranean from the time of the Los Millares culture (1970c, 51ff). 'Tartessos representa una monarquía aislada en el lejano oeste...' (1969b, 403); the river Tartessos was the Guadalquivir (1970c, 69); and the evolution of the 'empire' was closely connected with the establishment of the Phoenicians and Greeks in the West. He envisages

the kingdom of Tartessos as an urbanised 'sociedad estratificada con rica actividad agrícola e industrial' with an 'estructura política de carácter monárquico bien definida'. Furthermore,

'El carácter divino de su monarquía parece requerir un centro sagrado para la corte que fuera capaz de irradiar su influencia en el amplio territorio: que se la atribuye. Tal panorama requiere ciertamente una ciudad y en ella un templo o palacio que cobijara su realeza'

(1969b, 403-6)

Thus, a city with a palace or temple has yet to be located....

One of the mainstays of recent Tarshish/Tartessos correlations are the finds from the CERRO SALOMÓN, Río Tinto (Prov. Huelva). In the Río Tinto area, c.15-20 million tons of slag are attributed to ancient workings (eg. Ben Dor 1967; Blanco and Luzón 1969; Blanco, Luzón and Ruiz 1970; Blanco and Luzón 1975). Río Tinto is one of many mining areas in the hinterland of Huelva (like La Zarza, Tharsis and others): it is also the source of the Tinto river which is coloured red by the mineral content of its source ('sulfato férrico' according to Luzón 1962). The pre-Roman metallurgical activities recognised on CERRO SALOMÓN which are unequivocally associated with direct or indirect Phoenician involvement are only concerned with silver extraction. The nature of the copper ores in the Huelva hinterland makes them less easy to work than those further West, or even those of Eastern Andalusia (eg. Muhly 1976, 112 with references). Checkland (1967, 56ff) notes, in connection with the exploitation of Almerian and other sources of copper by the Arabs in the Middle Ages, that 'The copper of Huelva had always been, because of minor quantities of various elements that complicated the metallurgy, regarded as inferior; its great merit in Roman times lay in its quantity.\* It is unlikely, therefore, that copper exploitation was the main attraction of the Huelva area (contra Maluquer 1960; Garrido and Orta 1975, and many others).

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\* Unsuccessful attempts were made by the Spaniards in the 16th and 17th centuries AD to revive the exploitation of ores in the Huelva area, but even when advanced mining technology was applied there in the 18th century, considerable difficulties were still encountered.



Instead, as has been observed at Río Tinto, the beginning of significant ore exploitation in the Huelva hinterland does not appear to pre-date the silver extraction in the 7th century (as dated by Phoenician material found in the structures on CERRO SALOMÓN associated with the slag: see references above). This evidence will be discussed in greater detail below.

Before considering the evidence for Phoenician presence in Iberia and the reasons for their establishing substantial settlements, or 'factories' there, it should be noted that the usual explanation of Phoenician enterprise in Iberia is in terms of silver, gold and even ivory exploitation (see Täckholm 1975; Niemeyer 1972). But, it is proposed here that the Phoenicians initially entered the Atlantic trading sphere, linking it with a Mediterranean sphere essentially created by the Western Phoenicians in the late 8th and 7th centuries, and that the exploitation of local resources - in particular silver - was part of a second stage of Phoenician activity in Iberia, corresponding with the establishment of production centres on the south coast. The proposed involvement of Phoenicians in the Atlantic trading sphere makes a brief consideration of the Ora Maritima unavoidable.

The Ora Maritima was a poem written by Rufus Festus Avienus, a Roman proconsul of the 4th century AD, in which the Mediterranean shores from Gibraltar to the Black Sea were to be described for the benefit of a certain 'Probus' (Bertholet 1934, 53ff). There is no consensus as to the 'autorité ancienne extraite des auteurs' (line 79) on which Avienus based the 703 lines of the poem that have survived. A Greek (specifically Massaliot) periplus is favoured by some (eg. Schulten 1972, 110ff; García y Bellido 1953; Hawkes 1969); others favour Punic accounts (eg. Blázquez 1969). The late 4th century narrative by Pytheas is regarded as Avienus' source by Carpenter (1966, 199ff): it was also used by Diodorus Siculus and others.

In fact, the surviving lines of the poem deal mainly with the Atlantic and the Levantine coasts of Iberia. The challenge to identify the promontory called Oestrymnis and the islands of Oestrymnides has been taken up by many classical scholars and prehistorians.

The two most common viewpoints, as presented by Hawkes and López Cuevillas, can be summarised as follows: Hawkes (eg. 1969, 1971) locates the Oestrimnides in Armorica: in the late 7th and 6th centuries he proposes close connections between Armorica and 'Tartessos', the 'important bronze working centre in the Southwest':

'... este mismo Tartessos ha enviado sus mercantes mas allá de un gran golfo hasta las Oestrimnides, es decir, hasta Armórica, cuyos habitantes, vecinos de los Hierni de Irlanda y de los Albiones de la futura Bretaña, traficaban en barcos de cuero por su cuenta y eran ricos, sobre todo en plomo y estaño... ¡Qué notable ... la carencia de cualquier indicación de relaciones comerciales con Galicia!

(p.195)

He proposes that following the decline of Tartessos, and the beginning of Carthaginian involvement in this area in the 5th century, Galicia was 'discovered' by Himilco:

'Dentro de la Península de este modo hallará una tierra de metales casi nueva, con oro, plomo, cobre y sobre todo estaño... Luego empieza la leyenda de la islas del estaño y se instaura el comercio que se refleja en los adornos de oro con influencia del estilo ibero-púnico...'

(p.197)

The evidence described above for the L.B.A. bronze production centre in the Northwest clearly contradicts Hawkes' view of the late 'discovery' of Galicia and its metal resources.

López Cuevillas represents those authors who, unlike Schulten and Hawkes, locate the Oestrimnides in Galicia (eg. Monteagudo 1954). Whilst believing in the existence of Tarshish/Tartessos in the Southwest, López Cuevillas regards Galicia as their furthest venture: from the inhabitants of Galicia, 'los Oestrimnios', the Tartessians would have learnt about the territories further to the north, ie. Armorica and Britain. The Carthaginians took over this trade route from the Tartessians (1953).\*

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\* Jullly (1969) even derives Southern British and Armorican pottery of La Tène date from Carthaginian wares on the basis of the 'textual evidence' for the tin trade.



Early criticisms of the reliability of Avienus' account are to be found in the writings of Meyer (1931, 97) and even Schulten (1972, 111ff): 'Lo peor de todo es que confunde Tartessos con Gades, y Mainake con Malaka' (v.85, 269, 427) despite which Schulten believes that 'Por fortuna, es posible quitar la escoria de tales interpolaciones y sacar a la luz el viejo oro puro'!

The debate has recently been enlivened by Carpenter's novel view (1966, 206ff) that the 'tin islands' need not have produced tin but may in fact represent the place where exchanges for tin took place. Muhly (1973) supports Carpenter in regarding the 'Oestrymnic Isles' as the location of the exchanges for Cornish tin:

'... the voyage to Cornwall was made by the inhabitants of the islands themselves; they brought the tin from Cornwall to the Tin Islands, there to be exchanged for the goods brought by foreign traders, namely pottery, salt and vessels of bronze. From the Tin Islands the goods were brought into the Mediterranean:

Tartessians to the Oestrymnid islands bourne  
Once used to traffic. Folk from Carthage too  
Frequented once these waters, folk that dwelt  
and strove between the Pillars of Hercules.'

(p.267)\*

It would be unwise to get involved in the endless and ultimately sterile debate on the use of texts to locate the legendary Oestrimnides and Cassiterides. Let us note, instead, that there is archaeological evidence from Spain and Portugal of Phoenician and Punic activities in the Atlantic coastal zone. There is no evidence for an urbanised, highly stratified indigenous society - monarchic, imperial or anything else - and it is unlikely that there ever will be. Even García y Bellido noted that 'el problema de la ubicación de Tartessos "polis" esta en la misma situación en que lo dejaron los antiguos veinte siglos ha' (1953,163).

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\* Ora Maritima lines 113-116, translated by Carpenter (1966, 207).. Muhly gives an extensive bibliography for ancient references to the Tin Islands and their recent evaluation in the notes to Chapter V. The references to the objects traded are from Strabo, Geography III, 5, 11 (Muhly 1973, Ch.V, note 53).

The Phoenicians and Carthaginians active in this area were traders, not colonisers, and their concern with keeping their routes and contacts secret is known from the account of the Carthaginian ship that was deliberately wrecked on the rocks, rather than be followed to its source area by a Greek ship.\*

Avienus' poem also refers to Himilco's account of the Atlantic ocean:

'Les Tartessiens avaient l'habitude de commercer  
aux limites des Oestrymnides; de même les colons  
de Carthage et les gens répandus autour des  
Colonnes d'Hercule visitaient ces régions.  
Le Carthaginois Himilcon qui rapporte avoir lui-  
même expérimenté cette navigation affirme que  
c'est à peine si l'on peut les traverser en  
quatre mois. Ainsi nul souffle ne propulse le  
navire, l'eau de cette mer paresseuse semble  
engourdie. Il ajoute que du fond montent une  
multitude d'algues qui souvent retiennent le  
bateau comme une haie; néanmoins dit-il, la mer  
est sans profondeur, à peine une mince couche  
d'eau recouvre le sol; toujours des animaux marins  
circulent çà et là, des monstres nagent entre les  
navires qui se traînent lents et inertes.'

(lines 113-129, translated by Bertholet 1934)

Fortunately, no scholastic effort has been expended in finding these shallow waters, marine monsters and windless shores. It would be better still if less effort were spent on attempting to pin to the ground a poem by a Roman official, who had himself never visited the West, whose sources are unknown, but can be seen to be disparate, sometimes dispassionate but - as in the lines quoted above - sometimes deliberately deceptive.

The Western Mediterranean context of Phoenician foundations in Iberia, and the existence of a Western Phoenician sphere separate from the Carthaginian sphere, was first defined by Tarradell (1960, 260) as a 'círculo fenicio del extremo occidente' which included the Western

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\* References to support this view can be found in the writings of Diodorus (V, 20 and V.35); but quotations from classical writings can be chosen to support virtually any view of early Greek and Phoenician enterprise.



Mediterranean and Atlantic Phoenician foundations. Tarradell (1968) believes that this area - particularly the Iberian region - was unaffected by Carthaginian expansion and retained its Eastern Mediterranean connections until the period of Roman occupation of Southern Iberia. He regards the precious metal resources of Iberia which, due to their low bulk and high value, were suitable for transportation to the East, as the main attraction to the Phoenicians. Local chiefs, he maintains, possessed 'personal treasures', like that known from VILLENA (Prov. Alicante) (1968).

Important progress has been made in identifying this Western Phoenician sphere with the increased study of Moroccan material: following Tarradell (1959, 1952, 1960a, 1960b, 1968), Jodin (1966), and Ponsich (1969a, 1969b and 1971) have revealed the interconnections between the Iberian and North African areas, which were to be expected since the two areas are essentially part of the same geographical unit: the Mediterranean Channel (as defined by Braudel 1972, 108) and its Atlantic extension. This area is the context of the Phoenician and later Punic activities, as observed in Iberia. Within the context of this thesis, only Phoenician activities in Iberia can be examined, but the existence of this Western sphere is important and must be noted.

The necropoli of the Tangier area are said by Ponsich (1969b, 176) to be the burial grounds of 'indigènes phénicisés'. The grave goods include Phoenician products - in particular silver jewellery - some gold jewellery, iron sickles and knives. On the basis of the pottery found in the graves he sees a continuity of relations with Iberia - which had been suggested by Tarradell and others - and the existence of certain types not found in Carthage distinguish this Moroccan/Iberian sphere. It would appear that these necropoli pre-date the establishment in the late 6th or 5th centuries of Punic production centres, mainly for the manufacture of amphorae, ie. for transporting foodstuffs (Ponsich 1969b, 181; 1969a): he therefore regards them as possible evidence for the presence of 'Tartessian colonists' in the Tangier area. In this way Ponsich avoids the relevant questions as to the basis of acquisition of Phoenician jewellery and iron by the local population, whether obtained from Phoenicians or Iberian intermediaries.

Culican (1970b) has observed the Western distribution of characteristic forms of tripods and oil bottles; and Schubart and Maass-Lindemann (1976) have noted the Western North African parallels for some material found at CHORRERAS (Prov. Malaga) - and elsewhere in Iberia - which have counterparts in Carthage and the Central Mediterranean spheres: this applies in particular to the characteristic Western Phoenician urns and amphorae (see Lindemann 1974). The nature of the Iberian-African connections during the period of early Phoenician colonisation has yet to be elucidated: the use of West African gold (as suggested for Carthage by Gsell 1929, 83) which probably was the reason for Hanno's voyage (cf. Harden 1948) may be one of the material bases of this interrelationship.

Braudel contrasts the 'narrow seas' of the Mediterranean with the 'maritime Saharas', ie. the Ionian and Western Mediterranean basins. The 'narrow seas', including the Aegean, the Adriatic, the Tyrrhenian Sea, and the Mediterranean Channel, are distinguished by the intensity of the maritime communication within their confines (1972, 108ff). They were connected up by the activities of large-scale traders who skirted, or crossed, the 'maritime Saharas'. Although Braudel defined these units for his analysis of the 16th-century AD Mediterranean world, the nature of navigation and communication in the 1st millennium BC would have been constrained by the same gross environmental and even technological factors.

The Mediterranean Channel is defined as the area of the Mediterranean between the Straits of Gibraltar in the West and a line between Cape Matifou, near Algiers, to Cabo de la Nao, near Valencia, in the East (Braudel 1972, 108). This was the main sphere of Phoenician enterprise in the Far West in the late 8th and 7th centuries, where staging posts, production centres and burial grounds for Phoenicians resident in the trading posts are, quite predictably, found. This sphere was later incorporated into the Carthaginian political - as well as economic - system. Jodin's and Ponsich's research has revealed an early and fairly widespread Phoenician presence in this area as well as Atlantic Morocco, as far as MOGADOR, which was followed by more intensive Punic involvement



in the area. A feature of the Punic production centre at KOUASS is its confirmation of the 'liens qui existèrent entre le Sud de la péninsule ibérique et la région de Tanger dès l'époque phénicienne' (Ponsich 1969a, 234).

With respect to Iberia, the identification of various phases of Phoenician activity has been proposed by Pellicer (1962, 43ff): beginning in the late 2nd millenium with prospections, the 'fabulosos viajes al país de Tarsis'; a second phase of 'true colonisation' is proposed for the 9th to 7th centuries, in which the major colonial centres were established (9th century date for GADIR and CARTHAGE), penetrating the interior of Iberia as far as Córdoba and the coast to Alcácer do Sal; a third phase, a period of decline, is proposed for the 6th century, corresponding with the hegemony of Carthage. Tackholm rightly questions the 200-year interval between the foundation of GADIR and the main evidence for Phoenician establishments in the west (1975). Tarradell (1968) recognised a 'pre-colonial' phase of commercial relations, without foundations in the west, followed in the 8th and 7th centuries by the period of foundation of 'factories and towns', associated with commercial relations of greater intensity; interrupted in the 5th and 4th centuries with the beginning of Greek competition in the west.

Niemeyer (1972) has suggested that the evidence we now have from the late 8th and early 7th century foundations in Southern Iberia represent a 'Western Phoenician' phenomenon: he believes that the earliest Spanish sites were established from already existing Phoenician colonies in North Africa or the Central Mediterranean. He, like Bisi (1970), Barreca (1965), Brea (1966) and others, try to stretch the evidence for late 8th century Phoenician presence in the West into the 9th or even 10th centuries, constantly attempting to vindicate the ancient authors.

Barreca (1965) claims that the construction of the defences at MONTE SIRAI, Sardinia, represents an oriental type of structure which is dated, at the latest, to the 9th century in Sardinia, thereby supporting the Albright interpretation and date of the NORA and other Sardinian inscriptions. Albright (1941) compared the NORA and BOSA inscriptions

from Sardinia with the Honeyman inscription from Cyprus and decided that the similarity

'... proves conclusively that the Phoenicians were erecting monumental stone inscriptions at Nora and Bosa in Sardinia not later than the third quarter of the 9th century B.C. and *probably half a century earlier. It stands to reason that the first settlements in Sardinia must go back several generations, to the middle of the 10th century or even somewhat earlier.*'

(p.15, my italics)

Barreca and Bisi support Albright's chronology: in addition to the evidence from the inscriptions and the MONTE SIRAI fortifications, the emergence of bronze figures in the Nuraghic repertoire is considered to be related to Phoenician prototypes. Thus, 9th or 8th century Phoenician settlements are assumed to have existed in Sardinia. In fact, the earliest material from THARROS and SULCIS is dated to the 8th century by Guido (1963, 195-201). According to Harden (1971, 35-6), the stelae in the sanctuary at SULCIS are like those found in the Tanit precinct at Carthage, from which no material is earlier than the end of the 8th century (cf. Demargne 1951 and Culican 1961).

The example of MOTYA should curb some of these recent tendencies to update - without sufficient evidence - the establishment of Phoenician trading posts in the West. Although the earliest material from MOTYA is 8th century (Isserlin et al 1956; 1958, 1970), and the occupation of the site may have begun in the late 8th century, the Tophet began to be used in the 7th, the period when the fortifications were built, and MOTYA only flourished in the 6th and early 5th centuries (Isserlin, Du Plat Taylor et al 1974, 84ff). The few finds of Greek pottery of 8th and 7th century date found together with Etruscan wares in the rather ephemeral 'Stage 1' (pp.53, 73) should therefore not be overemphasised: the earliest datable material does not - at least in the case of MOTYA - tell us much about the 'life' of the settlement.



Niemeyer's interpretation of the Phoenician settlement evidence in Iberia is very much within this recent trend towards re-establishing the long chronology for Phoenician expansion. On the basis of two categories of material, Niemeyer (1972) proposes a late 2nd millenium phase of contact between Phoenicians and the people of Iberia.

The first category consists of engraved ivories found in tombs in the Southwest (which will be discussed below) and have been attributed by Freyer-Schauenburg (1966) to Phoenician workshops established in Iberia in the late 2nd millenium: this attribution is based on the finds from <sup>6th century</sup> Samos and the technique used in decorating the ivory, viz. engraving, which she maintains had been replaced by relief decoration on ivory objects (other than combs) in the early 1st millenium in Phoenicia. She dates the Iberian finds to the first half of the 7th century and does not attempt to account for the c.500 years in which the proposed Phoenician workshops existed in Iberia, and of which no products are known. Albright (1941) dates the ivories to the 9th or 8th century; Winter (1971) regards them as 'of actual Phoenician manufacture' and dates them to the late 8th and 7th century by comparisons with recent finds in Cyprus and Nimrud.\* Freyer-Schauenburg's 7th century date for the Iberian ivories is supported by Aubet's analysis of the iconographic content of Western ivories (cf. Aubet 1971a). Täckholm has argued against the 2nd millenium date of the establishment of Phoenician ivory workshops in the West on the basis of:

- (a) the fact that we do not know much about early 1st millenium combs in the East, eg. none are found in graves;
- (b) engraving is used as well as relief decoration on 1st millenium ivories known from Assyria, ie. combs should not be regarded as an independent category of ivory objects;
- (c) some relief carving is found on some Iberian ivories (cf. Bonsor 1899 Figures 24, 50, 127; and 1928, 10, 12-23);
- (d) an argument can be made against continuity in tradition from the late 2nd to the early 1st millenium technique of comb-making, in

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\* Only the summary of Winter's paper on the Iberian ivories is published.

that most combs from MEGIDDO have 2 rows of teeth, whereas the Spanish combs have only one.

But, Aubet (eg.1971b) and Niemeyer (1972) support Freyer-Schauenburg's argument.

The second category of material that Niemeyer cites as evidence for the 2nd millenium eastern connection is the L.B.A. pattern burnished ware found in southern and western Iberia, for which Schubart and Garrido (1967) and Schüle (1969a, 30ff) have proposed an eastern origin:

'So mag also auch diese Technik der handgefertigten Glättmuster-Keramik wie die der Elfenbeine mit geritzter Darstellung früher auf die iberische Halbinsel gekommen sein, als die Faktoreigründung etwa von Toscanos, nach den wenigen chronologischen Anhaltspunkten gegen Ende des zweiten Jahrtausends.'

(Niemeyer 1972, 43)

Niemeyer suggests that Phoenicians were the intermediaries in the transmission of this Eastern trait too in the period following the 'movement of populations' (cf. Pellicer 1962, 42) at the end of the L.B.A. in the Near East, when,

'Durch ihre eigene Tradition wie durch die geographische Lage an einer der Nahtstellen zwischen Vorderen Orient und der Mittelmeerwelt waren sie für eine Vermittlerrolle hervorragend ausgerüstet.'

(p.44)

There is just no convincing evidence to support Niemeyer's attempt to send the Phoenicians (or rather Canaanites) to the Far West in the 12th century. Since Freyer-Schauenburg's thesis does not appear to be soundly based, and since the use of pattern burnish is a fairly general decorating technique (which is hardly remarkable when burnishing is the finish regularly applied to all fine ware), and is found to recur in different periods and places in Iberia, there is no real evidence from the peninsula to support his hypothesis.



The L.B.A. regional trading system, as outlined above, presented an ideal opportunity for the economic strategies and the gains required by Phoenician merchants. A local infra-structure existed that contained the elements of specialised control over local resources and was predominantly oriented to maritime and riverine trade. Furthermore, we have observed the existence of an elite status in L.B.A. society, requiring supplies of 'luxury' items. In Iberia, the concept of 'luxury' in the L.B.A. varied considerably for example within and beyond the bronze production centres and their source areas.\*

It has been shown that before or during the initial phase of contact with Phoenicians, these luxury items, essentially bronze weapons and ornaments, were obtained from further north. The absence of any evidence for an indigenous southern bronze-working centre has been emphasised and the illusory gleam of 'Tartessos' has been fixed firmly in the eyes of certain beholders.

It is proposed here that an initial late 8th century phase of Phoenician manipulation of the existing Iberian trade networks - which were Atlantic oriented - preceded a second phase of greater Phoenician involvement in and commitment to Iberia. This second phase is represented by the major functioning of the 'factories' established in the late 8th and early 7th centuries, in order to intensify the commercial activities established in the first phase, and extend the Atlantic network to create a new Atlantic-Western Mediterranean sphere which is clearly recognisable, and is comparable with - and connected to - the other Phoenician trading spheres in the Central Mediterranean, centred in North Africa and the islands.

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\* Maluquer (1970b) presents us with an imaginative reconstruction of a feudal world of courts, lords and craftsmen, in contact with and hence influenced by the 'burguesía rica' of the colonial cities, expressing their wealth in imitations of 'the powerful classes' of the homeland which resulted in the formation of a 'burguesía colonial o criolla de nuevos ricos' (pp.99-100). Tarradell also envisages a L.B.A. society in which wealthy 'caudillos' possess personal treasures, like that of VILLENA (1968).

The Atlantic orientation of metal supplies and products has been dealt with above. But an interesting aspect of the Northern Atlantic L.B.A. discussed by Butler (1963, 229) is relevant here. It concerns the need for new outlets for Danish amber when East Prussian sources became the main suppliers of the Central European centres and their trade networks during Montelius VI (ie. the 7th century):

'One can well imagine a great increase in traffic on the open sea in this period, when, as the Northern razors and rock carvings show, the ship had become an object of adoration in the Baltic area.'

(Butler 1963, 229)

Butler notes that there is no evidence for Northerners reaching the British Isles, but the evidence of northern items, such as shields, that he seeks in Ireland are in fact known from Iberia, ie. on the carved Extremadura type of stelae.\* This, per se, is not convincing evidence for direct Iberian-Scandinavian contacts, but the association of amber with oriental type jewellery in indigenous graves in Huelva, LA JOYA cemetery, in the GAI0 graves (Sines, Alto Alentejo), and the Guadalquivir cemeteries, as well as its occurrence in the FORRAXI NIOI hoard in Sardinia, together with Atlantic bronzes, do support this connection and also indicate that the new outlet for Danish amber was the Phoenician oriented Atlantic trade network. The Phoenicians distributed the amber in southwestern Spain and carried it to the Central Mediterranean, as will be described below.

The L.B.A. Northwestern bronzeworking centre appears to have maintained its technological competence as late as the end of the 7th or early 6th century (as exemplified by the Galician antenna daggers, cf. Schülle 1969a); also the many golden torcs from this area suggest that it retained its position of economic significance, albeit in a new regional system, and despite the increasing use of iron throughout the peninsula following its introduction in the south by the Phoenicians.

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\* Whereas the Scandinavian shields have U-shaped notches, V-notches are represented on the stelae: only in Ireland are shields with both types of notches found (Coles 1962).



Although the majority of the HUELVA hoard contents represents an early phase of the Carp's Tongue horizon, this does not necessarily give an early 8th century date for its deposition. Neither can the evidence for the 9th century origin of the knee fibulae be used - as Schüle does - to date this hoard to the 9th or early 8th centuries. It obviously represents a collection of material that had been accumulated at various points within the Atlantic network, probably for the current form of transportation in short relays. But this collection represents the intervention of Phoenician specialist traders; the contents, ie. the fibulae of Eastern or Central Mediterranean derivation but not manufacture, confirm it. Daniel and Evans came to a similar conclusion:

'The close links between the coasts of Atlantic Europe may well have been fostered by the activities of Phoenician traders, and it is no accident that a cargo of bronzes carried by a ship of this period [the ninth or eighth century] which sank in Huelva harbour should have included, as well as "carp's tongue" swords, a spearhead of Irish type and stilted fibulae derived from a type which seems to have originated in the Levant in the tenth century B.C.'

(1967, 55)

But, according to Almagro (1975):

'Este depósito nos prueba que entonces los yacimientos de Río Tinto y Tharsis alimentaban, en la época de este hallazgo, una industria metalúrgica propia de un pueblo de origen europeo':

it represents the arrival of and predominance in Huelva of European populations, ie, part of the 'Celtic invasion'. Maluquer puts forward a complicated, but tautological, argument that Greek and Etruscan merchants were operating in the Western Mediterranean in the 8th century in order to obtain metals which, since there were no raw materials in Catalonia/Provence, were collected in the form of scrap bronze: this resulted in the paucity of bronze in the Catalan Urnfields since the Greeks were recuperating bronze weapons, implements etc. to use in their own centres.

His assumption that Greeks were in Iberia in the 8th century is based on literary records, which are not supported by the archaeological record (1966, 1970a). This argument is applied to the Southwest too: for example Schubart (1975a, 88) proposes that the HUELVA cargo represents the collection of material in the hinterland of Huelva. Here, it is proposed that northwestern and Atlantic bronzes were rare in the 'Southwest', as well as Southeast, before the Phoenicians intervened in the Atlantic trade network.

Thus the few palstaves and characteristic short sword/daggers found in the South, ie. at PALMA DEL RÍO (Prov. Sevilla), BAEZA (Prov. Jaén), MARMOLEJO (Prov. Córdoba) and TABERNAS (Prov. Almería) (Cf. Almagro 1966, Figure 58, 1; Figure 56, 3, 4 and 9) Figure 19, could have been distributed by Phoenicians who recognised the high value, low availability of bronzework in the South, and without having to invest in its production themselves, could have provided the elites of southern Iberia with the desired bronze weapons. Carriazo (1947, Figure 619) illustrates two double-looped palstaves, said to come from BAZA and DIEZMA (Prov. Granada) and published by Siret (1913, Figure 125); Figure 13, The 3 found in the Southwest - including the anomolous 'onubense' example - have been discussed above, together with the swords and other metalwork associated with the 'Southwestern' Bronze Age Phase II (Schubart 1975a).

The Phoenician intervention in the Atlantic trade in metals represents a characteristic Phoenician trading strategy, that has been demonstrated (in Part I A) in the Eastern Mediterranean: by providing transport and increasing demand for certain commodities they stimulated production and came to monopolise the output of indigenous production centres or resource exploitation. They then used these resources or products:

- (a) to gain access to or initiate the exploitation of new resources in other areas; or else used it
- (b) for exchange in distant - and therefore economically discrete - regions, thereby benefitting from the increased value of raw materials and products at some distance from their sources.



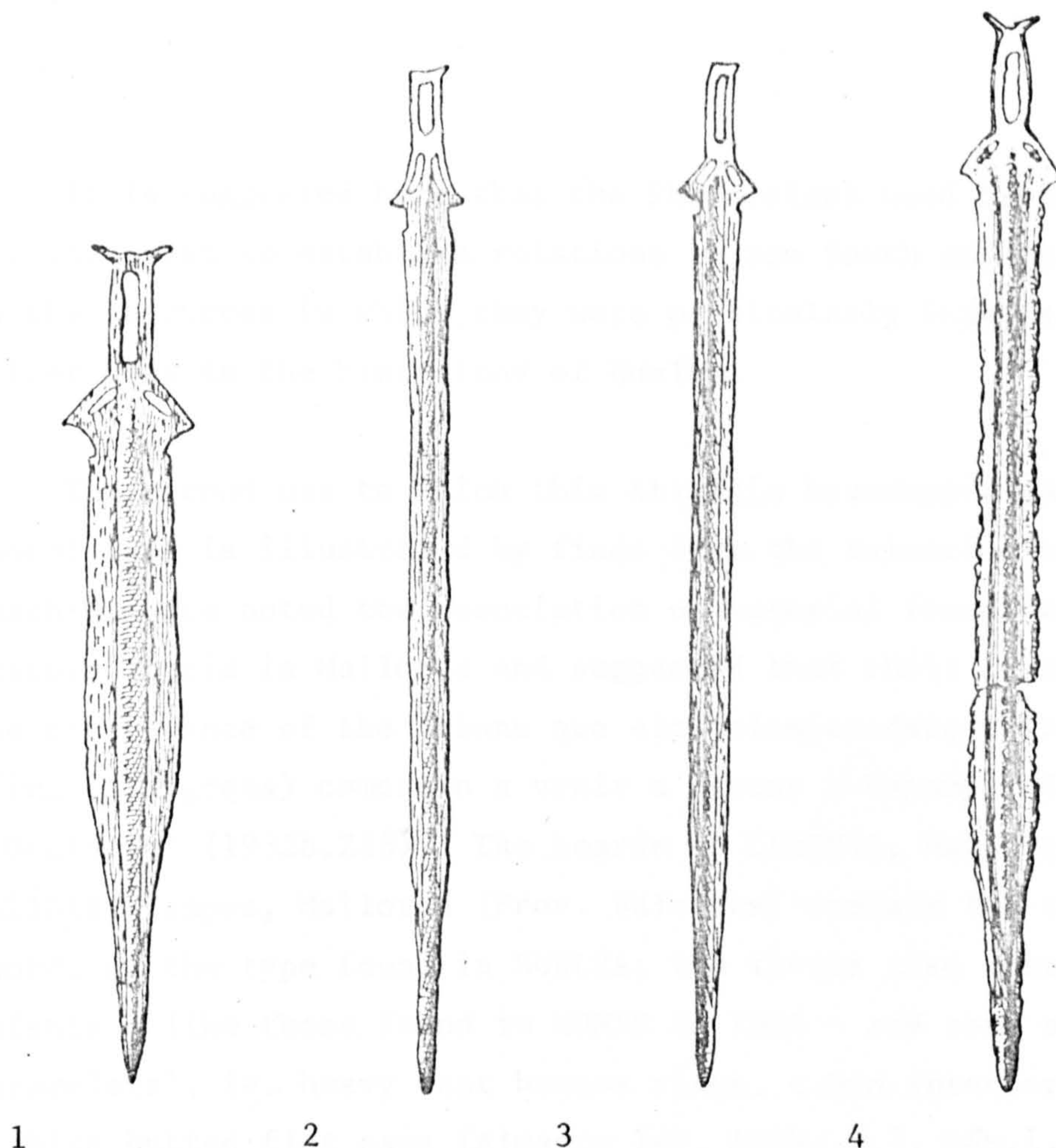


Figure 19: Atlantic types of short swords and daggers from Southern Iberia. (Almagro 1966: 1. Fig. 58, 1, PALMA DEL RÍO, Córdoba; 2. Fig. 56, 3, BAEZA, Jaén; 3. Fig. 56, 4, MARMOLEJO, Córdoba; 4. Fig. 56, 9, TABERNAS, Almería)

It is suggested here that the Phoenicians used bronzework from the Northwest to establish relations in the South and to gain access to the resources in which they were particularly interested, ie. the silver ores in the hinterland of Huelva.

The second use to which this Atlantic bronzework was put by the Phoenicians is illustrated by finds from the Balearics and Sardinia. Bosch-Gimpera noted the association of material found in Sardinia and Western Iberia in Mallorca and suggested that their occurrence there was the consequence of the 'abans que els colonitzadors orientals historics (finicis i grecs) comencin a venir a cercar a Espanya el metall de l'Occident' (1932b,228). The hoards of LLOSETA, Mallorca, and LAS SALINAS, Campos, Mallorca (Prov. Balears) contain the solid-hilted sword, of the type found in HUELVA; the latter also contains the heavy chisels - like those found in MONTE SA IDDA - and some strange solid 'bracelets', ie. heavy cast bronze rings, c.6cm interior diameter, and 5 thick butted flat axes (Almagro Inv. Arch. E.7, Lám.1, 1; and E.8, Lám.1, 1-4).

Material linking the contents of Northwestern hoards with those of Sardinia has also been found on the island of Formentera: a single-looped socketed axe (cf. MONTE SA IDDA); a trunnion axe (cf. MONTE SA IDDA and many Iberian parallels); and a plano-convex ingot as found in HÍO and other hoards of the 'Bronze Final Hispánico' (according to Almagro, Inv. Arch. E.12 Lám.1, 1-3) were all found in a hoard at LA SABINA, Isla de Formentera (Prov. Balears). Fernández Gómez (1973) has published four double-looped palstaves found buried together in SANT FRANCESC XAVIER, Formentera (Prov. Balears), associated with 4 of the distinctive Balearic type of trunnion axes, cf. LA SABINA, which are thought to be too thin to have been functional and may represent a form of ingot. The flat trunnion axes in this hoard show casting seams and an unfinished base.

According to Fernández (1974), the trunnion axes of the LAS SALINAS type were probably intended for smelting. The LA SABINA hoard contained crucible fragments and ingots, as well as a poorly cast socketed axe and



a trunnion axe. This evidence from the Balearic islands indicates that Atlantic bronzework was introduced into the area by Phoenician carriers en route for the Central Mediterranean, and in particular Sardinia.

The Southern Iberian, Balearic, Sardinian route indicated by the distribution of Atlantic metalwork is the route known to have been used in the 16th century AD, when ships sailing from Spain to Italy 'sailed by the islands', ie. the Balearics and southern Sardinia:

'The sea in the sixteenth century was an immensity of water; man's efforts had only conquered a few coastal margins, direct routes, and tiny ports of call. Great stretches of the sea were as empty as the Sahara. Shipping was active only along the coastline. Navigation in those days was a matter of following the shore-line, just as in the earliest days of water transport, moving crab-wise from rock to rock, "from promontories to islands and from islands to promontories". This was costeggiare, avoiding the open sea... The word that springs to mind as one studies the itineraries or Arti di navigare of the period, which are from beginning to end a description of the coastal route, is the humble word "tramping".'

(Braudel 1972, 103-4)

Avienus' account of the Atlantic and Mediterranean coast as far as Marseille represents a compilation of many versions of pre-Roman and possibly Roman 'tramping'; and the foundation of small Punic settlements at regular distances of one day's sailing apart on the western coast of North Africa, as observed by Cintas (1950), is another example of this type of navigation.

The Sardinian evidence for the presence of long-distance specialist traders bringing products of the Atlantic bronze industry - by 'tramping' around the southeastern coast of Spain and along the island route - is known from a number of hoards and stray finds on the island. The evidence indicates the Phoenician role in providing Sardinia with the raw materials, as well as some typological and technological innovations, obtained in the Atlantic trading network when the demand for high quality bronzework within the Central Mediterranean, ie. Sardinia, Sicily and Central Italy, was high.

Guido notes that 'The greater wealth resulting from Phoenician trade and the development of metalworking called for greater security' (1963, 113) which resulted in the development of the nuraghe, which became more massive and complex in their design. These developments began in the 8th century. Copper working in the Barbagia area is also thought to have begun in the 8th century; and the Iglesiente silver ores were probably first exploited by Phoenicians (151ff). Bronze implements appear to have been imported from the Italian mainland or even the Rhone valley (ie. winged axes), whereas characteristic Iberian double-looped palstaves, flat-backed palstaves and trunnion axes, and carp's tongue swords, are found in the FORRAXI NIOI and MONTE SA IDDA hoards. These are exceptional hoards, which can be dated by the imports among their contents. Guido notes that there are many hoards of axes and/or copper ingots which precede the Phoenician introduced metalwork. The Phoenician role in the Sardinian bronze industry was almost certainly established due to the need for an external source of tin to maintain the high quality and the large quantity of Full Nuraghic period bronzeworking.

There are also founder's hoards in which large quantities of scrap metal, rough castings and ingots are found; some include Iberian double-looped palstaves, eg. MONTE ARRUBIU (Sarrok) (Guido 1963, 164).

One of the most important hoards is from FORRAXI NIOI (Nuragus). It contained an admixture of Atlantic and probably Italian bronzework, in addition to raw materials for their production, ie. copper, cassiterite and lead, a small hammer, a piece of iron, a flake of gold and amber beads (Guido 1963, 165).

The MONTE SA IDDA hoard, Decimoputzu (Cagliari) is usually dated to the 7th century, as is FORRAXI NIOI. It contained a combination of bronzework: on the basis of typological features of the carp's tongue swords in the hoard Hencken has suggested that it should be dated to later than the HUELVA hoard and that the swords are related to the Italian carp's tongue swords (1956).



The hoard was originally published by Taramelli (1921); some finds are discussed and illustrated by Bosch Gimpera (1932a), Guido (1963, 167ff) and Hencken (1956). The illustrations in Taramelli's publication show that many were mis-cast or simply rough castings. Some of the better cast objects are of Iberian and Atlantic types, such as double-looped and flat-backed palstaves, trunnion axes, carp's tongue swords, and swords and daggers derived from the Iberian carp's tongue series. In fact, the deep round ricassi of some weapons (Taramelli 1921, Figure 44) resemble features of the Galician antenna daggers and are probably products of the northwestern bronze industry. In addition to the western bronzes, there is a series of 'eastern' types, including pieces of bronze vessels with decorated handles, a bronze figurine fragment, etc. The hoard also includes horse-harnessing rings and a possible mouth piece; chisels, plano-convex ingots and scrap. One of the fragments illustrated by Taramelli (Figure 90) resembles the 'brasero' handle attachment of the type found in Atlantic Iberia (cf. Cuadrado 1966, especially Figure 1), eg. at SANTA OLAYA, Figueira da Foz (Beira Litoral).

The introduction and supply of these Atlantic bronzes and raw materials to Sardinia in the 7th century was an important part of Phoenician enterprise in Southern Iberia. The production of bronzes was, in Sardinia as in Iberia, essentially an indigenous industry, which the Phoenicians encouraged and used for promoting their own trading activities and by providing transport could take advantage of existing differences in the value of commodities and create exchange rates in their favour in distinct spheres of exchange, just as they did in the Eastern Mediterranean. The connecting up of the Sicilian, Sardinian and Etruscan economies was essentially a Phoenician enterprise.\* It was part of a network which involved not only the supply of raw materials to indigenous production centres, but the setting up of Phoenician workshops producing Phoenician type jewellery, to supply the increasing demand for oriental trinkets,

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\* There is also evidence for Northern Italian and even Central European bronzework reaching Etruria and Sicily, in the context of Greek-Etruscan, and probably Phoenician, relations of the late 8th century (cf. Hencken 1955, 1958; see Part I B for the interconnections of Greek and Phoenician traders in the Central Mediterranean in this period).

and which were also significant stimuli in the evolving Etruscan 'orientalising' jewellery production centres.

The two most important commodities reaching Etruria and the Greek colonies from the Western Phoenician trading sphere appear to have been silver and gold jewellery, and amber.

The existence of distinct Carthaginian dominated and Western spheres of Phoenician production and trade is suggested by the distribution of distinctive forms of jewellery, like the 'ball-and-cage' earring which, as Culican (1973a) notes, has been found in all Eastern Phoenician, Cypriot and Western Mediterranean Phoenician contexts except Spain. They are best known from CARTHAGE and THARROS and the Museum at Cagliari; it is possible that the Moroccan finds are of 6th century date, ie. when the Western sphere was no longer centred in and dominated from Iberia. The distinctive Carthaginian razors - and other objects - never reached the West (see Gsell 1929, 74), and ostrich eggs are rare in 7th and even 6th century contexts in Iberia.

The high value of gold and silver, and the degree of skill of the Phoenician jewellers, is indicated by the fact that many 7th century Phoenician jewellery finds are of copper with silver or gold foil covering (Culican 1973a).

Culican has identified certain types of Etruscan jewellery which clearly have Western Phoenician prototypes, eg. the bulla pendants, made of silver by the Phoenicians. 'The presence of large numbers of silvered bronze pendants of this shape amongst archaic Etruscan jewellery would lead one to suppose that they were introduced to Italy from a Phoenician source' (Culican 1973a, 38). He also notes that amber versions of these pendants are commonly found in Etruria. The other Phoenician derived pendants are the U-shaped type (as known from Carmona, LA ALISEDA, THARROS, CARTHAGE and RACHGOUN, and from VEII and CUMAE); and the pendant ring with swivel scarab and suspension: this type of mounting of scarabs is found at PITHECUSAE and in the West, and an Eastern Phoenician or Syrian origin is thought likely by Culican: 'Another small but important link with



Etruria is the appearance at Carmona [CRUZ DEL NEGRO] of a small chain of plaited silver wire' (1973a, 40; cf. Bonsor 1899, Figures 76-90, no.13).

The 'barrel-shaped tubular beads' found in gold in CRUZ DEL NEGRO are known in silver in Carthage, Sicily and Etruria. The Etruscan silver medallions with punched decoration are also attributed to Phoenician prototypes, although only Canaanite and Punic parallels are known (Culican 1973a).

Thus, Culican has identified the Phoenician prototypes, and possibly imports, which not only found their way into Etruscan graves but were taken up by Etruscan gold and silver workshops (and which he had predicted would eventually be recognisable (1958)). The supply of gold and silver as well as of jewellery appears to have been - at least in part - in the hands of Western Phoenician traders. Hencken (1958) has noted that silver necklaces, pins, spirals and rings were frequently found in the 7th century Greek graves at Syracuse, corresponding with the use of silver in Etruria: 'This does not tell us whether silver was introduced into Etruria by the Greek commerce or how much ethnic or commercial ties had to do with it' (p.268). It is proposed here that silver was introduced into Western Greek and Etruscan jewellery production in the form of Western Phoenician jewellery and the raw metal for its production was eventually supplied too.

Associated with this Phoenician supply of silver and gold, there was the Western Phoenician supply of amber. Amber obtained from the Atlantic network was not only used within the Southwest but most appears to have reached the Central Mediterranean and possibly the Aegean too.\*

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\* Although the origin of the amber used in Etruria has not been proved to be Danish by analysis, the finds within southwestern Iberia, and those associated with Phoenician imports in Etruria, make an Atlantic origin logically ~~probable~~ <sup>possible</sup> in the 7th century. By the 6th century, the contacts established by the Greek and Etruscan centres of the Central Mediterranean with Central Europe north of the Alps (to be dealt with in Part III) would have involved independent access to a source of amber as well as other resources (such as metals).

Gsell noted:

'Vers le VIII<sup>e</sup> siècle, des marchands phéniciens colportaient dans l'Archipel des parures en ambre, et l'on peut se demander si ce n'était pas eux qui aux IX<sup>e</sup>-VII<sup>e</sup> siècles, introduisaient ces objets dans l'Italie centrale: l'ambre y apparaît et y disparaît avec les faiènces égyptiennes et les verroteries dont l'importation était due aux Phéniciens. Nous avons même quelques raisons le supposer que ceux-ci travaillaient; des scarabées, des figurines représentant des singes peuvent leur être attribués sans invraisemblance. Comment se le procuraient-ils? C'est ce que nous ignorons... Quoi qu'il en soit, elle est assez rare dans les sépultures de Carthage (elle l'est moins dans la Sardaigne). L'industrie, et sans doute le commerce de l'ambre ne se développèrent guère dans la ville africaine. On y a recueilli des perles, des disques, des pendeloques, un scarabée.'

(p.104)

A source of this amber was in the Atlantic, where the Phoenician oriented trade of the 7th century probably became the new outlet for Danish amber.

As it had been in the L.B.A. in the Aegean, amber was a highly valued component of Greek jewellery from Geometric times (cf. Higgins 1969). Its re-appearance in the Aegean appears to be associated with the introduction of Phoenician style jewellery both on the mainland (Higgins 1969) and islands, according to Culican (1973a), who cites the finds from KHANIALE TEKKE and the ARTEMIS SHRINE, where a Phoenician type of swivel pendant had an amber setting. In Etruria the appearance of granulated goldwork - a technique that was not at that time mastered in Greece - with ivory inlay was 'typical of the archaic facies of Etruscan jewellery', as indicated by finds from CUMAE, VEII (in an early 7th century context) and REGOLINI-GALASSI (Culican 1973a, 46) and was clearly the result of Phoenician imports and technology. He also notes that amber and Phoenician derived silver medallions have been found in mid 7th century context at VEII and NARCE; the amber finds Gsell referred to were from NARCE and VETULONIA. Amber was possibly already used - in very small quantities - in late 8th century contexts in Etruria and



Campania, ie. in the fibulae with enlarged bows, eg. from pre-Hellenic CUMAE, referred to by Hencken (1958).

The decline of the Western Phoenician sphere in the 6th century coincides with and was probably connected with the establishment of intensive connections with Western Central Europe by Etruscan and Greek traders established in or operating from Provence, and Etruscan centres in Northern Italy. (These will be discussed in Part III.)

## 2 Archaeological evidence for Phoenicians in Iberia: a brief summary

As has been proposed above, Phoenician enterprise in Southern Iberia involved, firstly, the tapping of the Atlantic trading network of the late 8th century: amber, bronzework, copper, tin and gold were obtainable within this exchange system. Secondly, it was proposed that the exploitation of particularly desirable resources would have been encouraged within Iberia. This was carried out in the south, where production centres, or factories, were established to provide the commodities required for use in local exchanges. The Phoenicians can be credited with having stimulated the demand for bronze in the south, and in addition to procuring Northwestern products for distribution there - as well as within the rest of the Western Phoenician sphere - the Phoenicians could have provided the technology not only for the exploitation of southern (Andalusian) copper ores, but also for bronze production, if they had access to Northwestern tin. (Copper exploitation has been proposed in the Córdoba and Huelva areas (eg. by Garrido 1975; Luzón and Ruiz Mata 1973; Blazquez 1975)); but this is a moot point, which may be resolved by current work in the area.\*

The Phoenicians' main interest in the south, and the main reason for establishing production centres there, was the exploitation of the silver ores in the Huelva hinterland. In order to organise this exploitation,

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\* 4th or 3rd millenium surface working of copper ores in the Río Tinto area has been noted in recent surveys by Rothenberg (lecture at the Institute of Archaeology, 1976).

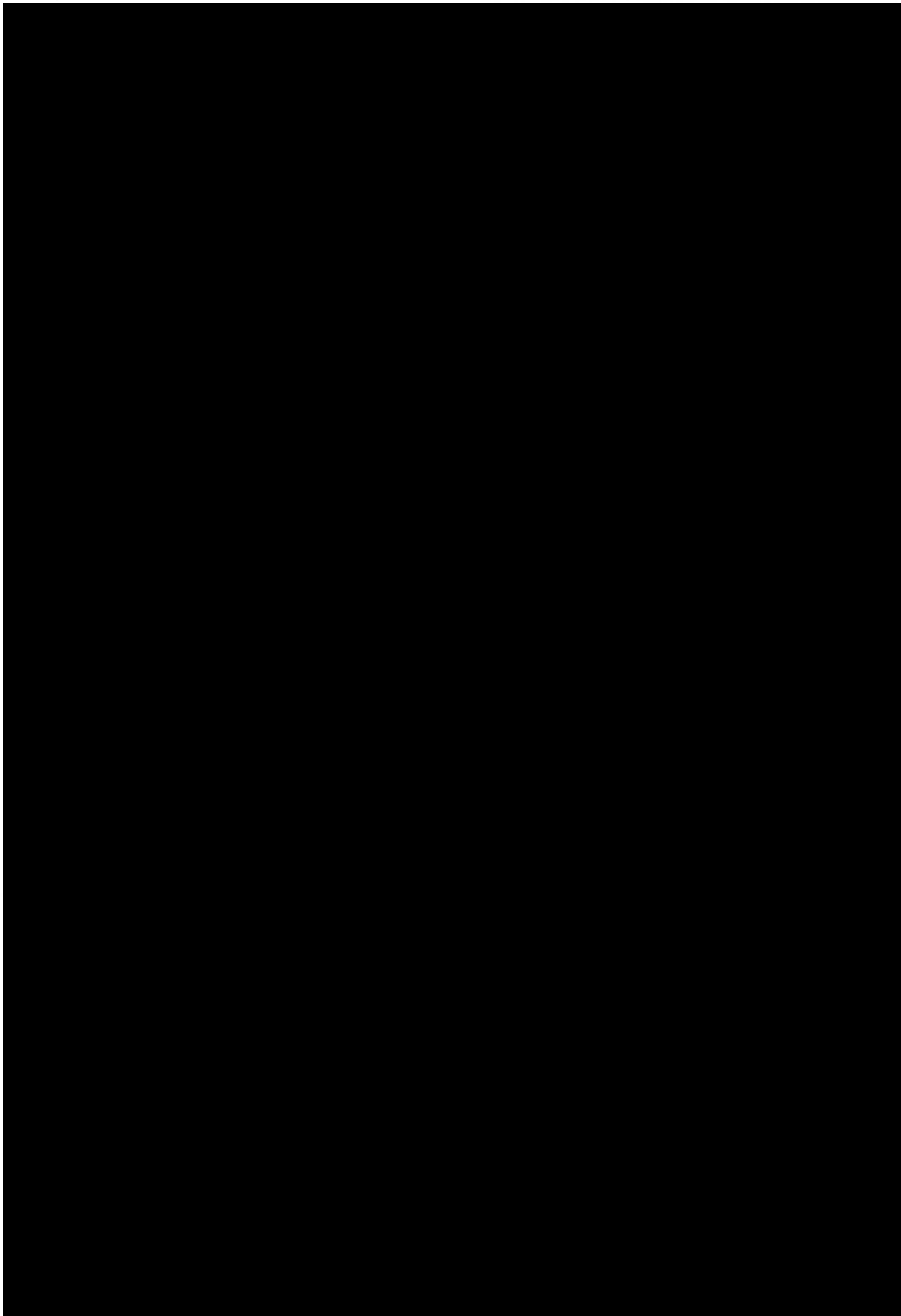
secure relations had to be established with the indigenous populations of the hinterland of the factories and the areas with maritime, riverine and overland access to the source areas; a workforce had to be attracted or contracted; and the production of foodstuffs for the maintenance of specialists in diverse industries had to be ensured. It is in terms of these projects that Phoenician establishments in the south of Iberia and their relations with the indigenous populations must be viewed. Figure 20 shows the indigenous regional sequences (described in Part II A) and the horizon of Phoenician contact (Schubart 1974, Figure 13).

Following the spectacular finds in the CERRO SAN CRISTOBAL necropolis, Almuñécar (Prov. Granada) by Pellicer in 1962, a series of excavations and surveys have quite radically changed the archaeological picture of Phoenician activities in Iberia, and despite Blázquez's attempt to verify the historical dates for Phoenician westward expansion (cf. 1968, 22ff), there appear to be two main centres of Phoenician activity in southern Iberia which cannot be dated earlier than the late 8th and 7th centuries:

- (i) on the Mediterranean coast of Andalusia, between Adra and the Málaga area;
- (ii) on the Atlantic coast of Western Andalusia, ie. in the Niebla-Huelva-Ayamonte area.

On the Mediterranean coast, settlements and cemeteries of purely Phoenician character are found at the mouths of rivers which were important not only for fresh water supplies but to facilitate communication with the interior zones of Andalusia. The coastal zone between the Vélez and Algarrobo rivers is connected by the river Vélez and the Puerto de Zafarraya with the hinterland beyond the Sierras of Alhama and Tejada to the 'Campiña' and 'Alcores' areas of the Guadalquivir valley (cf. Niemeyer and Schubart 1969, 121). Similarly, the Guadalhorce valley is a natural route into the middle reaches of the Guadalquivir. In the case of Phoenician foundations at the mouths of the smaller Algarrobo and Verde rivers, communication with the interior is unlikely to have been the basis of the choice of location. But, it is important to regard these establishments as elements of a single Phoenician complex, whose functioning was



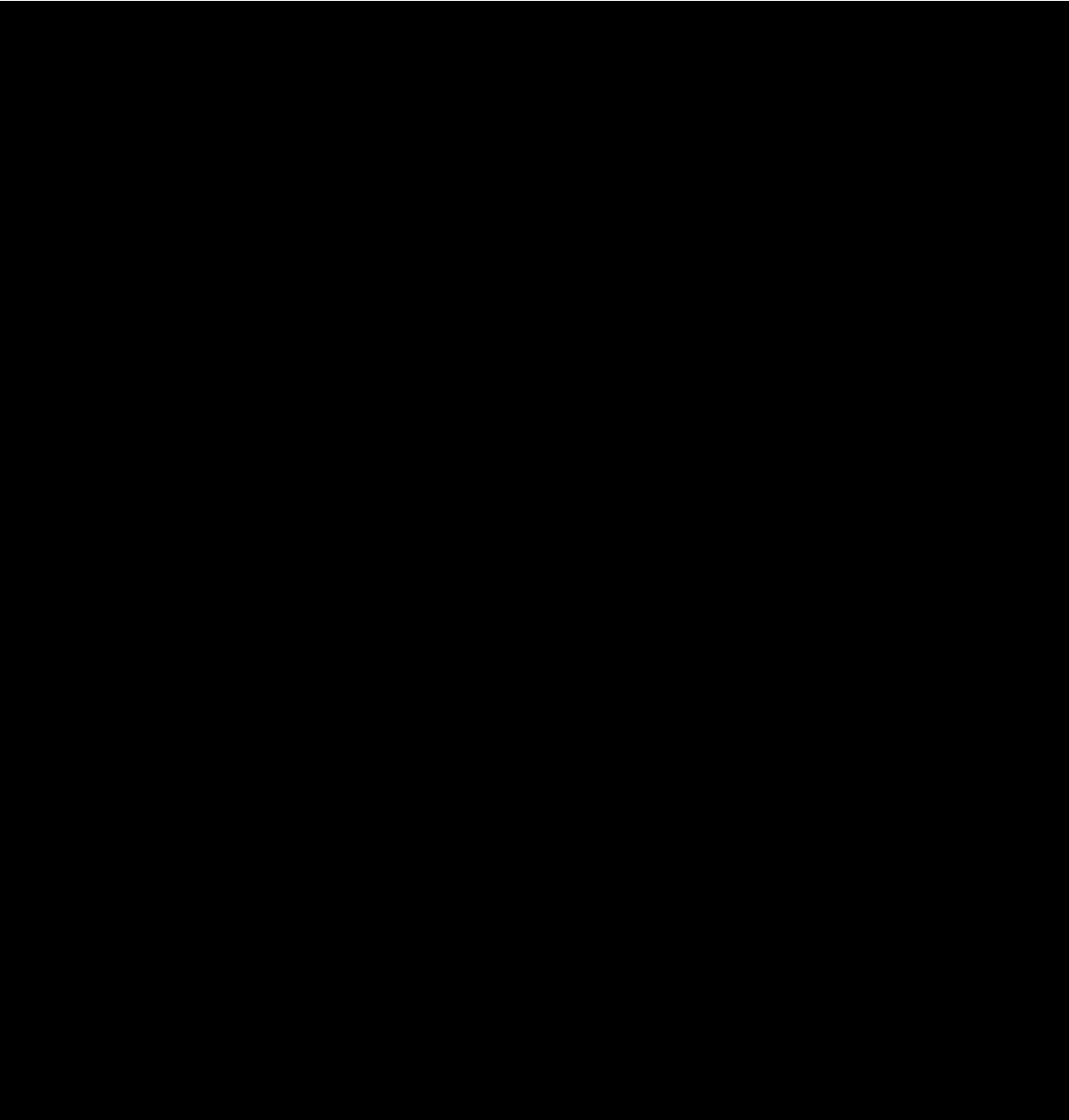


complementary and would each have their specific advantages and probably industrial activities. The distance between them is as little as 800 metres, in the case of CHORRERAS and MORRO DE MEZQUITILLA, Algarrobo (Prov. Málaga); and TOSCANOS, Vélez-Málaga (Prov. Málaga) is only c.6km further along the coast, see *Figure 21* (taken from Schubart and Maass-Lindemann 1976, Abb.1), which shows the sites at the mouths of the Vélez and Algarrobo. *Figure 22* shows the Phoenician establishments and the main indigenous settlements or cemeteries which will be referred to here.

Since 1961, the Deutsches Archaeologisches Institut, Madrid, has been investigating the sites in the Torre del Mar area at the mouth of the Vélez, and the Algarrobo rivers. The sites of CERRO DEL PEÑON and CERRO DEL MAR on the lower Vélez were the focus of Schulten's attention (eg. 1972, mapa VI) who thought that the former was the Greek colony of Mainake, and that the small hill of Toscanos was part of the Roman town of Maenuba (see references in Niemeyer and Schubart 1969, 1ff). Schulten's interpretation of the geography of the south coast and the findings he claimed from his excavations have not been supported by the D.A.I. excavations. A red slip flagon, published by Fernández de Avilés (1958) gave the first indication of what was to be found in the Río Vélez area.

The TOSCANOS and other Torre del Mar excavations of 1964 (Pellicer, Niemeyer and Schubart 1966; Niemeyer and Schubart 1969; Schubart, Niemeyer and Pellicer 1969) were followed by further seasons in 1967, 1971, 1973 and 1976. The results of the excavation of the prehistoric levels of TOSCANOS are clearly summarised in the eastern section of Trench 1 (Niemeyer and Schubart 1969, Beilage 7) and the plan in Lindemann et al (1972, Abb.3). (The extent and layout of the trenches was largely dictated by the present agricultural use of the site and the railway cutting running through it.) On the Southwestern side of the settlement there is evidence for several phases of construction. A steep-sided ditch was located in Trench 14 (See Lindemann et al 1972, Abb.3 Taf.20b); it is thought to have curved sharply to the northeast - as it was not located in Trench 12. A 'fortificatory' function of this ditch is not conclusively demonstrated; it has only been located for a length of 6 metres. Dry stone walls built on top of the ditch fill are seen to be





*Figure 21:* The distribution of Phoenician sites on the coast between the rivers Vélez and Algarrobo. (Taken from Schubart and Maass-Lindemann 1976, Abb. 1)



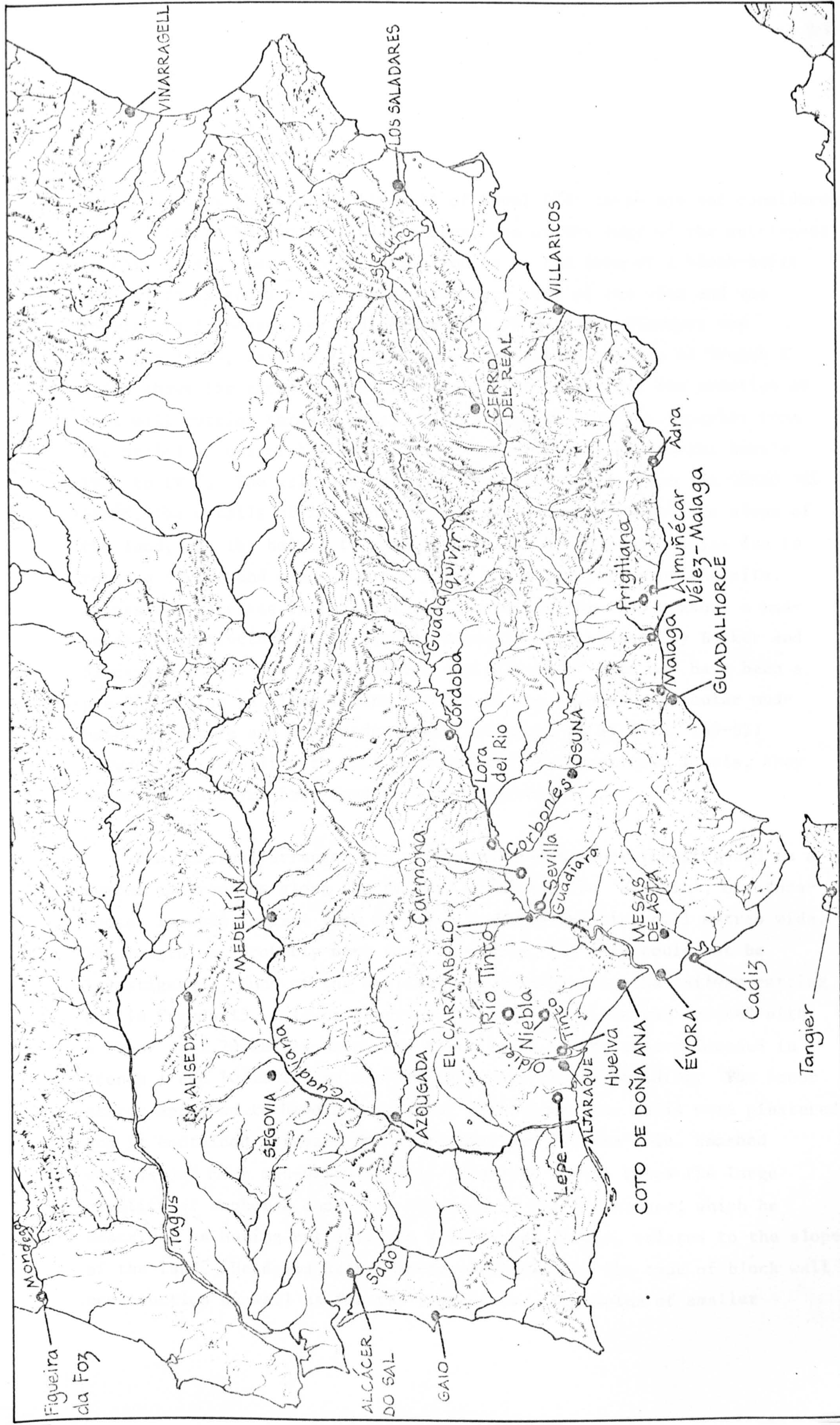


Figure 22: Map of major sites and regions referred to in Part II B.



intersected by the block-built wall of Level III: these are not considered to be defences but indicate a different use of the edge of the settlement in this phase. The main fortification is in the form of a block-built wall which extended along the southwestern side of the site and was located in trenches over a distance of c.70 metres. Niemeyer and Schubart (1969, Beilage 7) illustrate the eastern section of Trench I which shows the excavation of the foundation trench for the erection of this wall cutting through Levels I, I/II and II, and the deposits from the period of use of the wall accumulated mainly to its north: Levels IV a to IV f. The wall was built of limestone blocks from the CERRO DEL PÉNÓN; the details of its construction appear to vary with the slope of the land, and the height to which the blocks still stand varies due to robbing during and since the period of Roman occupation of the site. A possible entrance in the wall was located in the 1973 season; a mud-brick superstructure on the stone foundation is proposed by Bakker and Niemeyer (1975). In two trenches, indications of what may have been a pre-Phoenician settlement were located in the form of a circular mud-brick structure and hand-made wares (Lindemann et al 1972, 135-6): between the deposit with this material and the Phoenician levels, they report a 'fundarme bzw. fundleere Auffüllschicht'.

The internal arrangements of the settlement were investigated in a number of trenches along the railway cutting. The 'Magazin', or storehouse, located in 1964 (Bau C) was a 3-aisled building c.11 metres wide. Its length was probably more than 15 metres, but this could not be investigated. Much of the building was destroyed by the railway cutting, but in Trench 15, a lower storey of the eastern aisle was located with a floor at 2.70 metres below the floor level of the storey located in Trench 1 and 10/11 in the northwestern part of the building. The lower storey appeared to have had internal partitions, its walls were plastered and it contained evidence for a 'destruction horizon', ie. smashed vessels and much mud-brick rubble. Niemeyer (1972) notes the large quantity of amphorae sherds in the area of the storehouse, which he describes as having entrances on 2 different levels, related to the slope of the land. He draws Near Eastern parallels for the type of block wall construction as well as for the storehouse. A complex of smaller

buildings, taken to be dwellings, adjoin the storehouse (see Niemeyer and Schubart 1969; Lindemann et al 1972).

A general classification of the material from the first seasons is given in Lindemann et al (1972): c.70% of the pottery is coarse ware, mainly amphorae and other closed forms; c.16% is red slip ware, mainly plates, also bowls and lamps, amphorae and flagons; c.8% is polychrome, ie. red/brown bands with black stripes or other elements contrasting with the body colour giving a 'polychrome' effect, mainly wide-mouthed forms with handles between the rim or neck-ridge and shoulder, jars and bowls (see Niemeyer and Schubart 1969, Tafel 1-6; Pellicer 1969); and c.6% is grey ware, mainly shallow bowls, yellow ware and smoothed surface wares. The proportion of red slip and polychrome ware is said to vary in different areas and levels of the settlement. A possible local form of painted ware, consisting of roughly painted stripes on open bowls (cf. Lindemann et al 1972, Taf.24, o, p, q) could be a 7th or 6th century development.\*

The 265 sherds of hand-made ware (compared with c.10,000 wheel-made sherds) recovered in the 1964 excavation are given special attention by the excavators: 57% of the hand-made wares were found in levels I and II; from then on they diminish in number. Niemeyer and Schubart note (1969, 115) that the bowls and the short necked vessels, some with nail or finger impressions, are current forms within the L.B.A. and E.I.A. of Andalusia: this has since been confirmed by many recent excavations in eastern and western Andalusia, described above. They interpret these finds as evidence of exchanges between the Phoenicians and the indigenous inhabitants of the area, possibly as containers for honey or other agricultural products; their gradual decline is taken to be a consequence of the increased use of the wheel-made wares produced at TOSCANOS by indigenous populations.\*\*

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\* Possible parallels for this roughly painted ware are found in the material from GORHAM'S CAVE, Gibraltar, which contains some 6th, as well as 5th and 4th century material according to Culican (1972).

\*\* This argument is not supported by Gran Aymerich's excavation at CERCA NIEBLA - EL VADO just north of TOSCANOS, where very little Phoenician material was found (Gran Aymerich 1973, Gran Aymerich et al 1975).



The hills next to the low mound of TOSCANOS have all produced Phoenician material, but not in the quantity or of the same date as that from the 'factory': the CERRO DEL PEÑÓN (Niemeyer and Schubart 1969, 4-11) and CERRO DEL MAR (pp.12-24) have mainly produced material of 6th century or later date, which correspond with the period of use of the JARDÍN cemetery (Lindemann et al 1972; Maass-Lindemann and Schubart 1975; Schubart and Maass-Lindemann 1976). The existence of an early Phoenician cemetery on the west bank of the Vélez is proposed by Niemeyer and Schubart, mainly on the basis of the Eastern Phoenician bronze perfume burner found on the CERRO DEL PEÑÓN (Niemeyer and Schubart 1965; Niemeyer 1970).

The ALARCÓN excavations have revealed early mud-brick and stone structures and material comparable with that of the late TOSCANOS settlement, a dry-stone defensive wall is thought to be contemporary with that of the 'factory' and possibly represent a response to a historical situation in which both sites had to be defended, and the assistance of indigenous people is represented by the simple dry-stone technique of the ALARCÓN fortification (Niemeyer and Schubart 1969, 148).

This evidence for contact with indigenous populations - or exchange relations and contracted labour - are important. As described in Part I A, section 4, the formation of Phoenician populations in the trading posts involved the incorporation of local population: the use of indigenous hand-made wares, later abandoned in favour of the locally produced or imported Phoenician wares recognised on many Western Phoenician sites (eg. MERSA MADAKH, Vuillemot (1954) and MOGADOR, Jodin (1966)) testifies to the presence of non-Phoenicians, and their acculturation.

Niemeyer (1972) has suggested that during the 7th century, the period recognised as the floruit of TOSCANOS (eg. Niemeyer and Schubart 1968; 1969, 116), relations with the homeland were of greater intensity than in the earliest phases of its existence. He cites as evidence for this the serpentine plate, the alabaster vessels and the high quality red slip wares found in levels associated with the 'storehouse'. It is also noted that the c.100 fragments of different Greek wares - none of

which are earlier than 720 - include Proto Corinthian kotylae fragments, SOS Attic amphorae sherds and 2 rim sherds of Ionian bird vases, of late 8th century date. The Attic SOS amphorae and PC kotylae sherds in level IV b date this level to the early 7th century (Schubart and Niemeyer 1969, 212). The occurrence of these Attic amphorae, together with Eastern Phoenician red slip ware, is known from PITHECUSAE (see Part I B, section 2).

One of the most significant findings based on the 1964 material, and since amplified, is the typological development and hence relative chronological significance of the red-slip plates. The width of the rim, and the ratio of this width to the diameter of the plate, is seen to change during the 8th to 6th centuries: see Schubart and Niemeyer (1969) Figure 7, in which the narrow-rimmed plates of Level I are contrasted with the broad rimmed, and sometimes notched-lip plates of Level IV. Figure 23 taken from Schubart and Maass-Lindemann (1976, Figure 7) shows how this has been applied to material from TRAYAMAR and CHORRERAS too. They stress the fact that the use of different forms overlap and that the broadest rim should be regarded as the chronological indicator of the associated material.

Until recently, the warehouse of TOSCANOS was unique. Now, another possibly similar structure has been excavated at GUADALHORCE, a 'tell' on the right bank of the Guadalhorce river: in the 7th century deposits of Guadalhorce I (Levels VII c-a, VI b-a) a large building (of unknown size) of similar construction to the TOSCANOS warehouse was used. A level of rubble with few finds (Level V) seals Guadalhorce I, and the site is thought to have been uninhabited for a short period before the beginning of the Guadalhorce II settlement horizon (Arribas and Arteaga 1976). Certain differences in the contents of Guadalhorce I and II have been observed, especially as far as red slip wares are concerned: in Guadalhorce I, lamps, flagons and broad-rimmed plates and straight-sided bowls were found; whereas in Guadalhorce II, the red slip plates are of different form and have notched rims (Arribas and Arteaga 1976; some information of the site has been published by Arribas 1967; Arribas et al 1969; H.-P. and M. Uerpmann 1973).



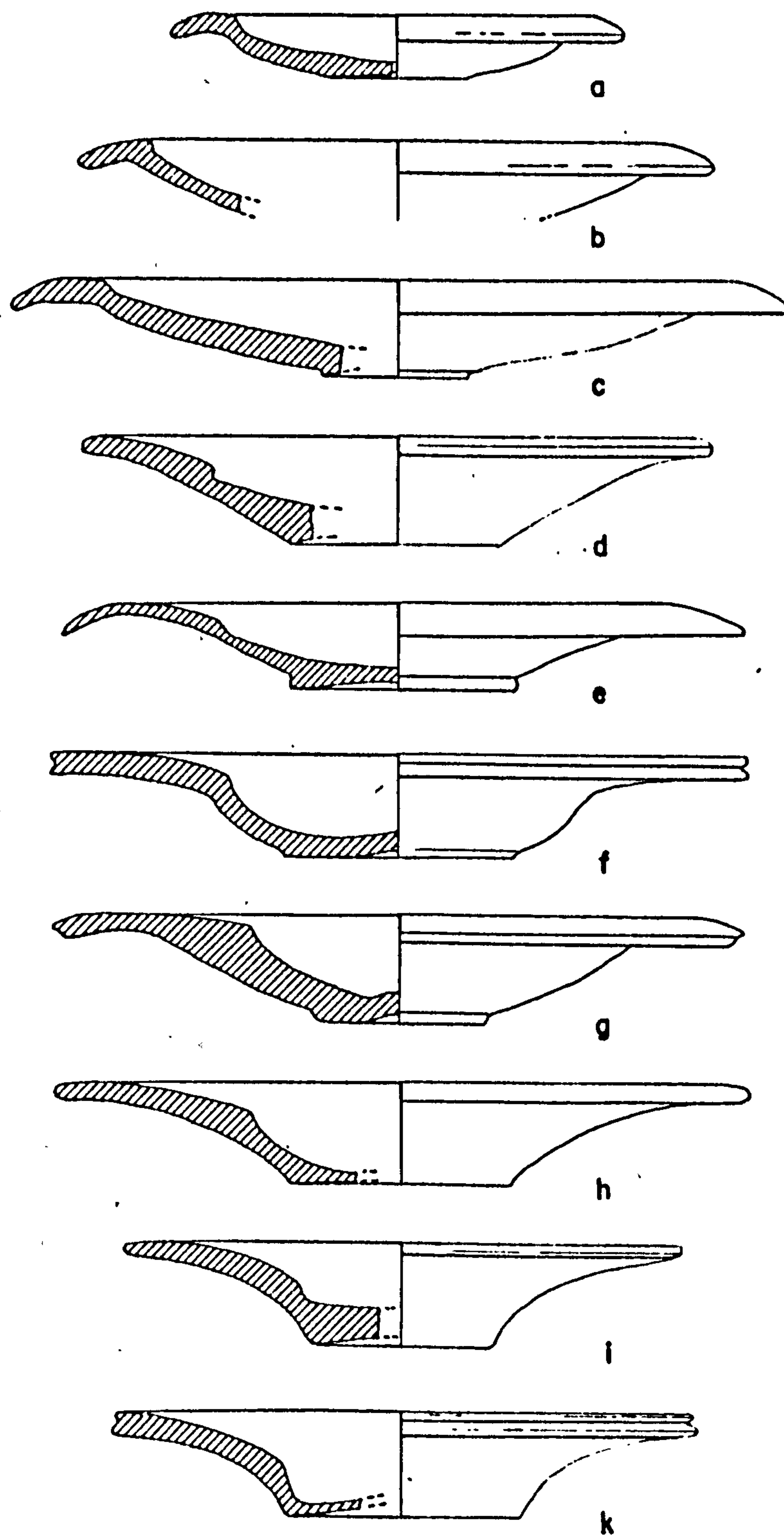


Figure 23: Development of red slip plates, 8th to 6th/5th centuries.

(Taken from Schubart and Maass-Lindemann 1976, Abb. 4)

a, b CHORRERAS; c TOSCANOS, Level II; d TOSCANOS, level IV b;  
 e ALMUÑÉCAR, grave 12; f TRAYAMAR, grave 1, dromos; g TRAYAMAR grave  
 4, chamber; h TRAYAMAR Grave 4, level 8; i JARDÍN, grave 57;  
 k JARDÍN, grave 86.

Scale: 1:3

On the site of MORRO DE MEZQUITILLA, at the mouth of the Algarrobo, 2 trial trenches were excavated in 1967 (Niemeyer and Schubart 1975, 3ff): they revealed 2 partly disturbed levels of possibly pre-Phoenician material and Phoenician levels. The most recent excavations (1976) on the slopes rather than the summit of the small hill have revealed deposits of considerable depth, up to 4 metres, and the possibility of an extensive areal excavation of undisturbed Phoenician levels now exists (Schubart, personal communication). Significantly, the recent excavation has shown that the L.B.A. - E.I.A. material occurs together with but not earlier than, or independent of, the Phoenician settlement material. Its occupation began at the same time as that of TOSCANOS and GUADALHORCE, ie. late 8th century, and continued into the 6th.

At the nearby site of LAS CHORRERAS (Aubert 1974a; Aubert Maass-Lindemann and Schubart 1975; Schubart and Maass-Lindemann 1976) a complex of rectangular buildings were excavated on 2 adjoining low mounds: the deposit appears to represent a brief but early, ie. late 8th or early 7th century, occupation, as can be assessed by the comparison of material found within and between the structures. In fact, the settlement on the MORRO, a higher mound slightly further inland, is thought to have been established from CHORRERAS. The important tombs of the TRAYAMAR cemetery on the opposite bank of the Algarrobo, dating to the 7th century, indicate the significance of these settlements and of certain families, or high ranking members of the Phoenician community, established here. The significance of the 5 TRAYAMAR chamber tombs will be discussed below.

Of the 5 chamber tombs known from TRAYAMAR, only one - Tomb 4 - was excavated, and that under extremely difficult conditions. Rough plans and ideas of the contents of Tombs 1, 2, 3 and 5 were obtained despite their destruction in the course of agricultural activities on the site (Fernández Canivell et al 1967; Niemeyer et al 1964; Niemeyer and Schubart 1968a and 1975). Tomb 4 was excavated in 1967; a 4 x 4 metre pit, in which the chamber was constructed, was recognized. Limestone blocks were used for the construction of the walls, slabs of the floor; 2 horizontal beams of wood were probably originally part of the construction of the walls (Niemeyer and Schubart 1975, 82ff) and a reconstruction of



the tomb (Tafel 47) shows what an elaborate structure this - as well as the other TRAYAMAR tombs - represents. At the level of the beams, niches were built into the walls, c.40cm wide and deep. Two phases of use of Chamber 4 were recognised: 3 cremations in perishable containers or in amphorae (graves 4 a, b and c) and 2 inhumations (4 d and e). Amongst the ashes of 4 a, gold beads and sheet fragments were found. Two red slip trefoil flagons may have been later offerings: one was seen to lie on c.5cm of fill above the stone slab floor (pp.88ff). The inhumations were separated by a c.5-8cm thick deposit from the cremations. Inhumation 4 d was directly above cremation 4 a in the Northwestern corner of the tomb. This inhumation had rich gold ornaments, 2 glass and a Carnelian bead as goods. In the Western niche a bronze fibula and a mushroom lipped and trefoil red slip flagon were found; the Southern niche was empty; in the Northern niche an ivory box had been placed.

A doorway in the northern wall that led to the dromos was roughly filled in to seal the chamber some time after its use: stone blocks used in this filling-in were obviously of secondary usage, as noted by special features of the blocks which were not related to this construction, ie. one had the characteristic 'Bossierung' known from the Phoenician block wall at TOSCANOS (Niemeyer and Schubart 1975, 85).

The gold medallion from grave 4 d is discussed by Culican (1970a, 33ff): it is clearly one of a series of Phoenician medallions with representation of a divine dwelling (in this case a mountain) guarded by falcons, above which the divinity is symbolised by a disc and crescent. Medallions of simpler type have also been found at JARDÍN (Schubart and Maass-Lindemann 1976) in graves 65, 70 and 80. But the use of the specifically Phoenician medallion of obvious symbolic significance to its possessor is so far only known from TRAYAMAR tomb 4, grave d.

Niemeyer and Schubart (1975) relate the architecture of the TRAYAMAR chambers to the L.B.A. stone-built tombs of UGARIT and support the view that the Cypriot stone-built tombs (eg. SALAMIS) were also Phoenician influenced (118ff). Possible 7th century parallels in CARTHAGE and UTICA are noted, and later examples from VILLARICOS and

from Morocco are noted. They see these Phoenician tombs as the prototypes of the 'Iberian' stone-built chamber tombs, eg. of TUTUGI and TOYA. Lindemann (1974) describes the Western Phoenician context of the chamber tombs.

The town of Almuñécar is thought to be the location of another Phoenician foundation: so far the only excavated evidence comes from the CERRO DE SAN CRISTOBAL cemetery of 'Laurita' (Pellicer 1962). This cemetery consists of characteristic deep shaft graves in which the bones of cremated remains were deposited in alabaster urns in the base of the shaft or in lateral niches (cf. Lindemann 1974). To the east of Almuñécar another cemetery is thought to have been established: Schubart (1973a) notes that gold jewellery with granulation and filigree work, like that of LA ALISEDA, of 7th century date has been found there. He also refers to an unpublished excavation near Adra, on the CERRO SAN CRISTO, which has reached 5th and 4th century levels, but not the deposits with 7th century material that is known from surface finds on the site.

The Atlantic sites with Phoenician material are also dated to the late 8th century, eg. the site of ALJARAQUE, on the right bank of the Odiel river (Blázquez 1969, 239). Blázquez et al (1971) have published the findings of the excavations there: stratigraphic observations were limited to one trench in which 4 distinct levels are said to date from the 7th to the 1st century. Level 4, 7th century, contained red slip and grey wares: the occupation of the site in this period is attributed to the attraction of the wealth of metal ores in the interior. But the later Phoenician phase of occupation is thought to represent a poor fishing village with limited 'trade relations'. There is a tendency in this report to concentrate on vague parallels, such as for rectangular structures, or the nature of the floor, regardless of the overall context or correspondence of the structural and material elements of the site. Garrido and Orta (1975) cite further red slip surface finds from the site and accept the excavators' evidence for 'exclusively Phoenician levels'; they also suggest that the site is the 'city' the Greeks called Kalathoussa.



Blázquez et al (1971, 304) claim that ALJARAQUE was one of the many places known to and visited by the Phoenicians:

'Los cabezos de Huelva; ... el cerro de las Flores, en Ayamonte; la desembocadura del río Piedras en El Rompido, y muchos otros puntos costeros, fueron conocidos y habitados por los navegantes orientales, quienes vinieron probablemente atraídos por las riquezas mineras que poseían los pueblos del interior.'

But, the 'riches of the interior' were not used by the indigenous population before the establishment of Phoenician contacts: the evidence from the hills of the city of Huelva indicates small scale initial settlement, only expanding during the phase of Phoenician expansion, ie. the 7th century, but continuing to be of some significance in the 6th century (Garrido 1973), as seen in the cemetery of LA JOYA.

Garrido has located a similar 'factoria' on the right bank of the river Piedras at TORRE DEL CATALÁN, Lepe (Garrido & Orta 1975, 207) from which so far only surface finds of Phoenician amphorae and red slip ware, said to be of 6th and 5th century date, are reported. He also claims to have located a site corresponding with that of CERRO SALOMÓN in the Tharsis area, at LOS MILLARES, Gibraleón: it too is known only from surface finds which include coarse ware, grey ware and Greek sherds (1975, 208ff).

The most important association of Phoenicians with ore extraction comes from the CERRO SALOMÓN, Río Tinto (Prov. Huelva) where excavations have revealed a settlement of small rectangular units in which slag and other debris from metal extraction were found in all the excavated areas (Blanco et al 1969, 1970; Blanco and Luzón 1969). The extraction of silver from the jarosite was a more complex process than silver extraction from galena ores as known in the Southeast during the Bronze Age (Blanco et al 1969, 156): the Río Tinto silver workers used the same technique of cupellation as their Argaric counterparts, as indicated by pieces of lead found in the metal-working areas. According to Blanco and Luzón (1966 and 1975), most of the c.20 million tons of slag at Río Tinto are

the remains of ancient silver working, with some slag resulting from copper extraction too: this, they maintain, applied to the other areas of Huelva too, ie. Tharsis, Sotiel-Coronada, etc. The extraction of silver in Río Tinto is said to be matched by the

'explotación del cobre, un metal que los portadores de nuestra cerámica incisa extraían en otros yacimientos de la provincia de Huelva y de la sierra de Córdoba... Desde Tejada la Vieja, en Huelva, hasta la Colina de los Quemados, en Córdoba-ciudad, hemos ido recogiendo testimonios de metalurgia de cobre y rastreando huellas de minería del mismo metal...'

(Blanco et al 1969, 157-8)

But the main evidence for this extensive copper working, which they claim to have been the prerogative of 'incised ware users', are the grooved stone hammers which are particularly abundant in the Río Tinto and Tejada areas (Prov. Huelva) and Cerro Muriano (Prov. Córdoba).\*

Blanco and Luzón (1975) interpret the remains of metallurgical activities in the CERRO SALOMÓN settlement as follows:

'El hecho de que [las escorias] se encuentran dispersas por las casas, y no formando grandes depósitos como en época romana, indica que el proceso de fundición no se hacía en una gran concentración industrial sino que se llevaba a cabo por igual en todas las viviendas estudiadas hasta el momento y siempre a la reducida escala de una actividad doméstica.'

(p.241)

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\* These hammers, originally published by de Serra Rafols (1924) have been cited by Garrido (1968, 34) and (1975) as evidence for copper extraction in the Huelva area and other parts of Andalusia in Bronze I when, it should be noted, only 3 copper axes are known to have been used as grave goods in the Huelva area. We now know that these stone hammers could as easily be associated with 7th century or even later phases of metal exploitation in Andalusia. See Garrido (1971) and del Amo (1975) for the cist cemeteries and early (?) Bronze Age settlements from the Huelva area: it is also known from the earliest levels of the CABEZO DE SAN PEDRO (cf. Fernández 1975).



This indicates very extensive silver-working, since the habitation debris covered the entire top of the Cerro, c.1 km long, but in some areas the occupation was of later date, eg. in the northwestern sector Greek pottery was found (Blázquez 1975, 401).

The evidence from the CABEZO DE LA ESPERANZA, Huelva city, of slag from silver working throughout the 8 levels distinguished by Garrido (Garrido 1968) in his 1966 excavation, associated with Phoenician wares in the lower levels (especially level VII). Characteristic Phoenician wares of the 7th century are better known from the 1967 excavation, where unfortunately the deposits were disturbed (Schubart and Garrido 1967). Fernández (1975) claims to have found smelted metal fragments with crucible impressions in the levels in which Phoenician material was found in his limited excavation on the CABEZO DE SAN PEDRO. A more interesting corpus of material from this site is published by Blázquez et al (1970), but it was largely collected rather than excavated.

However, the association of metalworking with Phoenician material in the Huelva settlements is very important. It is possible that the labour force involved in what might have been seasonal exploitation of the ores in the Río Tinto area came from the Huelva area, and that slag was processed and silver extracted in the major settlements as well as on the primary processing site. It is suggested here that, although the Phoenicians almost certainly introduced the silver extraction technology, they themselves did not monopolise its application. On the contrary, silver extraction was deliberately left to the indigenous populations. The Phoenicians supplied the technology and organised the initial exploitation: this phase is possibly that of the early 7th century finds on the CERRO SALOMÓN when masses of Phoenician amphorae and other characteristic Phoenician material were used on the extraction site. Later, the Phoenicians obtained the silver they required through exchanges of goods that they either imported or produced locally (on the Mediterranean coast) and for which they could establish the rates of exchange and control the distribution. It is unlikely that the Phoenicians would have continued to organise the ore exploitation when they could obtain the silver they required by supplying imported bronzes, oils, wine, fine pottery, textiles

- probably dyed and made into garments in the production centres of the west as they were in the east (cf. M. Uerpmann 1972; H.P. and M. Uerpmann 1973, for the evidence of the use of murex for extracting dyes in TOSCANOS). They may have established a few bronze workshops within their Iberian 'factories'; so far there is only evidence for one tuyère from TOSCANOS, in what appears to be a 7th century context (cf. Blanco et al 1969, 155).

### 3 The nature and function of the Phoenician establishments and relations with the indigenous populations

Unfortunately, the evidence in the Huelva area and the Guadalquivir valley for the Early Iron Age is still interpreted in terms of Celtic invasions, Indo-European metalworkers, etc. The ubiquity of the incised and impressed decorated coarse ware throughout the south does not stop Blanco et al (1969) from regarding it as evidence of intrusive populations.\* Luzón and Ruiz (1973) recognise that the possibility of it being an indigenous development should not be ignored. They have observed the 'gradual replacement' of the characteristic burnished L.B.A. wares by the impressed decorated coarse wares and its coincidence with the first appearance of Phoenician material in controlled excavations at LA COLINA DE LOS QUEMADOS, Córdoba (Prov. Córdoba) and ATEGUA (Prov. Córdoba):

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\* They give a list of sites with this material, in addition to those of COLINA DE LOS QUEMADOS and ATEGUA:

'... hemos recogido abundantes muestras de ella en prospecciones de superficie realizadas en Huelva-ciudad (Cabezo de la Esperanza), Niebla (Los Bermejales), Paterna del Campo (Tejada la Vieja), Tarsis (Corta "Esperanza"), el Coronil, el Arahal (ruinas de Basilippo), Puente Genil (ruinas de Astapa), Aguilar de la Frontera, etc., esto es, en los dos extremos y en puntos del centro del triángulo de la Baja Andalucía ... Añádanse a ellos Carmona y Mesas de Asta, recintos ciclópeos de la provincia de Córdoba descubiertos y explorados por Juan Bernier y minas de la sierra de esta misma provincia, a saber: Cerro Muriano, Campo Bajo, Cañada de Valdeviento, la Bramona, etc.' (p.126)



furthermore the first evidence of metalworking is known from the same context. The significance of these connections is largely ignored, and Blázquez (1975, 360) summarises the evidence for the 7th century in Andalusia, based on the occurrence of pottery with incised or impressed decoration:

'Estas cerámicas indican la presencia de gentes procedentes de la Meseta y de filiación moderna,... Es decir, en torno al 700 a.C. llegan al Sur dos oleadas culturales distintas, que suplantán la rica cultura andaluza inmediatamente anterior a las primeras colonizaciones. Esta cerámica con decoraciones digitales, que aparece también en Toscanos, se registra en Mogador y posiblemente confirma intensas relaciones de Tartessos con el N. de Marruecos, en esta fecha.'

At ATEGUA, where the 'arrival of the incised ware users' (cf. Blázquez 1975, 370) is as clearly observable as at LA COLINA DE LOS QUEMADOS, the agricultural advantages of the area are considered to be the main attraction to the site. Slag was found by the excavators and copper ores are known c.5 km away. Blanco et al (1969) believe that the intrusive population 'developed a military activity' since the settlements at ATEGUA and TEJADA LA VIEJA, Paterna del Campo (Prov. Huelva) were fortified and an Extremadura type of stela was found within the walls of the former. Other examples of the Extremadura type stela are known from CARMONA and SETEFILLA (Almagro 1970): they could be indications of relations with Extremadura at this 7th century date, at the beginning of the metal-working and using phase in Eastern Andalusia. This is not totally unexpected, as the role of the Tagus estuary and Extremadura population as intermediaries in the Atlantic bronze trade has been observed in the pre-Phoenician contact period and they probably continued to play an important role with the onset of Phoenician control of the Atlantic trade network: The Extremadura stelae represent the period of Phoenician contact, when Northern Atlantic, Eastern and Central Mediterranean elements are represented together in the carvings.

At present there appears to be no reason to postulate intrusive meseta populations as the 'bearers' of the new combination of cultural traits identified by Blanco et al (1969):

- (a) incised and finger impressed pottery;
- (b) rectangular houses;\*
- (c) intensive metallurgical activity;
- (d) close connections with colonial establishments on the south coast (p.126).

Having summarised very briefly the evidence for Phoenician establishments in Southern Spain, and the rather inadequate state of investigation into the indigenous sites with E.I.A. occupation, it is essential to try to answer two questions: why did the Phoenicians establish these production centres in the south, and what relations did they establish with the indigenous populations of the peninsula?

We have already referred to the fallacy of the traditional view that the Phoenicians were attracted to Iberia by the existence of a metal-using and metal-working 'civilisation' of great splendour in the southwest. Instead, the metal riches originally known to and tapped by the Phoenicians were the bronze and gold commodities and products which were circulating in the Atlantic trading sphere and involved the functioning of several bronze production centres as well as small-scale intermediary centres. By the mid 8th century the Euboeans and Phoenicians were stimulating a need for bronze and therefore encouraging the exploitation of copper resources (and possibly tin) in Central Italy. The increased use of high quality bronzes in Sicily and Sardinia can only be understood in the context of the Phoenician extension of the Central Mediterranean sphere of operation by establishing their own 'Western sphere' from which new, and quantitatively greater, supplies of the components of bronze and precious metals were obtained. The rarity of tin resources (discussed above) should not be forgotten.

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\* The rectangular houses of CERRO SALOMÓN, ALJARAQUE, LA COLINA DE LOS QUEMADOS and ATEGUA are compared with one oval house at LA COLINA (Luzón and Ruiz 1973, Lám.LXII).



Within the Eastern Mediterranean and Near East, the importance of silver in the L.B.A. and the likelihood of Iberian sources being used, for example in UGARIT, have been discussed in Part I A, section 2. The evidence for the use of silver as a standard and as a medium of exchange by the 8th century has been discussed in Part I A, section 3, based on the work of Balmuth (1967, 1971, 1975). The requirements for silver in the 7th century by the Assyrian empire were largely met by 'tribute' payments from and exchange with the independent states, such as the Phoenician city-states, which were part of the Assyrian dominated Western Asiatic regional economic system. In fact, in terms of Wallerstein's (1974) definitions, the Phoenician city-states represented characteristic semiperipheral regions, and the Far West the periphery of the Assyrian core-state.

'... the interests primarily located in the semi-periphery are located outside the political arena of the core-states, and find it difficult to pursue the ends in political coalitions that might be open to them were they in the same political arena...'

(p.350)

But the importance of the semiperipheral regions is that 'they are collection points of vital skills that are often politically unpopular' (349-50). The Phoenicians, as described in Part I A, section 3, became the suppliers of the raw materials - and luxury commodities - that enabled the Assyrian empire to function and expand its political frontiers within Western Asia: they did this by establishing a new periphery to the Central Asiatic/Eastern Mediterranean regional system in the Western Mediterranean.

Within Iberia, there is no evidence that the Almerian silver ores were exploited in the 8th or 7th centuries, whereas the establishment of VILLARICOS and the attempts by Greek and Carthaginian centres to obtain an independent source of silver would probably indicate a 6th or early 5th century date for their major exploitation (cf. Blázquez 1968, 217; Schule 1969a, 33; Trías de Arribas 1967-8). Any earlier tapping of Almerian silver would have been instigated from the Eastern Andalusia centres in contact with the Phoenicians, ie. from the Córdoba area.

However, the material from Río Tinto and the Huelva settlements makes the exploitation of silver there in the 7th century indisputable: furthermore, the fact that it was a Phoenician instigated enterprise is beyond doubt. We have also postulated that the industry, once established, was essentially an indigenous operation, the products of which were obtained by the Phoenicians through the production of characteristic Phoenician commodities and the continued supply of silver was secured by establishing relations with the high-ranking members of indigenous populations using special high-status goods, which will be discussed below.

The question of the incorporation of indigenous people into the Phoenician centres is important and must be examined in greater detail than it has been to date. A recent paper on the assimilation of indigenous elements of population by Whittaker (1974) is useful mainly for the later, Carthaginian, period.\*

The functioning of the Phoenician production centres in the 7th century, on the scale that is beginning to become apparent with the evidence from TOSCANOS, GUADALHORCE, CHORRERAS, MORRO DE MEZQUITILLA and possibly Almuñécar, cannot be envisaged without the incorporation of indigenous elements of population from the immediate and perhaps more distant (Guadalquivir) hinterland. The nature of the Phoenician cemeteries, located to date, indicates the existence of a Phoenician elite - representing the founders of the firms and representatives of the 'haburs' of the Eastern cities - whose burials can be seen to contrast with those found in cemeteries like that of the CORTIJA DE LAS SOMBRAS, Frigiliana (Prov. Málaga), which are more related to the indigenous cemeteries of the Guadalquivir, particularly in the Alcores area of Carmona, and Lora del Río.

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\* Unfortunately, Whittaker's view of the Phoenician 'demographic expansion' into the Western Mediterranean, particularly Iberia, is based on misunderstanding both the nature of Phoenician expansion (which he believes represents the same process as Greek colonisation) and the archaeological evidence for their presence in Iberia (eg. in the case of MORRO DE MEZQUITILLA), as well as the nature of the Lower Guadalquivir 'marismas'.



The finds of Phoenician material in indigenous context, in the Guadalquivir and the Huelva area, should be interpreted as an important aspect of the second phase of Phoenician involvement in Iberia. With the establishment of the 'factories' on the south coast there was an increased need for attracting population to assist in the manufacturing, and perhaps transporting, processes, as well as for supplying the production centres with the agricultural produce required for supporting the substantial resident populations of specialised craftsmen and merchants, deep-sea fishers (Lepiksaar 1973), as well as navigators, ships' crews and possibly ship-builders. The main object of the establishment of the production centres was to provide the desired commodities to maintain the Phoenicians' dominant role in the Atlantic trading system and to add to it the supply of silver, the exploitation of which they themselves had instigated in the Southwest.

The possibility of direct access to the Phoenician coastal establishments from many parts of the hinterland, as well as by sea, and the nature of Phoenician merchants' activities along the southern, western and Levantine coasts of Iberia, would have made it impossible for any one particular centre - or region - to have dominated, let alone monopolise, exchange relations with the Phoenician centres.

We must envisage the establishment, not only of regular maritime routes, but also inland routes used by caravans of overland traders. Among the animals introduced to Iberia by the Phoenicians was the donkey; the others were the domesticated fowl and cat. (H.P. and M. Uerpmann (1973) cite evidence from TOSCANOS and GUADALHORCE; von den Driesch (1973) notes remains of donkey, cat and fowl from CABEZO DE SAN PEDRO.) The variation in the proportions of certain animals, in particular those which could have been used as beasts of burden as well as sources of meat, is noted by H.P. and M. Uerpmann (1973): they suggest that at TOSCANOS, cattle were used as 'Arbeitstiere' (p.93). The high proportion of donkey and horse remains they note for GUADALHORCE (1973, 68) substantiates the type of interdependence of these Phoenician 'factories' that was proposed above: whereas TOSCANOS - and possibly other settlements - were more concerned with production, GUADALHORCE, and others,

would have been more involved in distribution and collection of the products of the factories and the resources of the interior. Furthermore, the evidence from TOSCANOS, in particular the predominance of goat remains amongst the sheep/goat category, suggests to H.P. and M. Uerpmann the

'.. Existenz einer Bevölkerungsschicht ... die ihre Hauptbeschäftigung nicht in der Landwirtschaft sondern in anderen Wirtschaftszweigen fand. Für eine solche Schicht können Handwerker, Kaufleute, Fischer, usw. in Frage kommen'

(p.93)

It is relevant to report their findings that demonstrate the difference in the composition of faunal material from TOSCANOS, when compared with other Phoenician or contemporary Iberian settlements. They note:

'Zuerst ist festzuhalten, dass die Faktorei von Toscanos nicht als abgeschlossene Wirtschaftseinheit anzusehen ist. Vielmehr ist davon auszugehen, dass von der Gründung an der Gütertausch mit dem Hinterland angestrebt war. Ein gewisser Teil der Schlachttiere dürfte also aus dem Hinterland nach Toscanos gebracht worden sein. Die Verschiebung in der Zusammensetzung der Fleischnahrung kann also nicht unbedingt darauf zurückgeführt werden, dass der eigene Viehbestand der Siedlung seine Zusammensetzung geändert habe und sich damit das anfallende Schlachtviehangebot verändert hätte.'

(p.86)

However, it is difficult to agree with them that 'Ein Anlass zur Eigenproduktion von Schlachtvieh im Bereich der Faktorei war also wohl gegeben' (p.86), when the function of these Phoenician settlements was production and transport. Thus, the changes in the proportions of animals slaughtered (eg. Tabelle 25) is more likely to represent minor variations in the exchange relations with neighbouring Iberian populations than a change in the size of the 'consumer units' within the settlement.

The many L.B.A. settlements known from the Guadalquivir, particularly between Sevilla and Córdoba, eg. EL CARAMBOLO, Camas, CORIO DEL RÍO, SAN JUAN DE AZNALFARACHE, GALVES, MACARENO, La Rinconada,



and LORA DEL RÍO,\* as well as the Jerez and Huelva areas, all had E.I.A. occupation levels, and all are seen to have had access to the Phoenician products of the south coast, as indicated by the red slip and other Phoenician wares found - but rarely excavated - on these sites.

The Phoenician amphorae, probably containing oil, wine or even unguents, as well as the highly valued red slip and grey wares, together with textiles etc, were obtained from the merchants operating from the coastal production centres, but also importing certain commodities, particularly jewellery and bronzes, from centres in the Central or Eastern Mediterranean. By introducing bronzework, initially from the Atlantic network, then their own Phoenician style bronzework, to the indigenous populations of the Southwest, they created an increased demand for 'luxuries' such as high quality bronze, as well as silver and gold work, and encouraged the exploitation of local resources, such as copper, in the Córdoba area: this was a characteristic Phoenician strategy, observed in the Eastern Mediterranean too. They also secured the supply of livestock and agricultural produce, on which their functioning must have depended.

The two most interesting - and significant - categories of Phoenician introduced commodities are the alabaster vessels and the ivories. It is proposed here that the Phoenicians took alabaster urns and engraved ivories to the West to be used there in the same way as in the East. This material represents the highest political status in the East: ivory products were for royal use; similarly alabaster vessels denoted royal status. Those found in the Phoenician tombs of CERRO DE SAN CRISTOBAL, Almuñécar, bear the seals of 9th century Egyptian pharaohs: Osorkon II, Sheshonq II and Takelot II (Pellicer 1962, 51ff). Pellicer cites as the only parallels for their use as urns the royal cemeteries of TANIS, in Egypt, and SAMARIA. Essarhaddon is known to have looted the treasures of Abdimilkuti's palace at SIDON for alabaster vessels which he then had inscribed with his own name and stored among his own treasures in the palace at ASSUR

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\*.I should like to thank F. Gómez, of Huelva, for informing me of these L.B.A. and E.I.A. sites in the Sevilla area.

(Culican 1970c); this Assyrian practice is noted also by Leclant (1970). According to Leclant the Western alabaster amphorae, from TRAYAMAR tombs 2 and 3, ALMUNÉCAR and TOSCANOS are of oriental origin 'provenant, certaines du moins d'Egypte même, elles ont été exportées en Phénicie ... puis de là réexpédiées vers l'extrême Occident'. Gámez-Wallert (1973) has studied the inscription of the alabaster vessel from ALMUNÉCAR tomb 1, which she recognises as an Egyptian product.

Whether of Egyptian or Phoenician manufacture, the significance of the alabaster vessels is the same: they symbolise political authority in the East and their use by Phoenicians in Iberia should therefore be regarded as recognition by Phoenicians operating or resident in Iberia of the rank of certain members of the indigenous societies: the Phoenicians treated them like 'kings'. The isolated finds of alabaster vessels on the south coast of Spain, eg. from the RÍO BARBATE (Prov. Cádiz) (Pellicer 1963, 22); PUERTO DE TIERRA, Cádiz (García y Bellido 1970, 21ff - with references) and PUERTO DE SANTA MARIA, near Castillo de la Pólvora (Prov. Cádiz) (García y Bellido 1970, 11) (representing an amphora remodelled in Roman times) should be noted. But the more significant finds are those with known associations and contexts, ie. OSUNA, SETEFILLA, LA JOYA, TOSCANOS, TRAYAMAR and ALMUNÉCAR.

OSUNA (Prov. Sevilla) is a fortified settlement, mainly with 'Iberian' occupation according to the evidence of the 1903 excavations there by Engel and Paris (1906). The Phoenician material from the site, in particular from two burials within the settlement, has been re-examined by Aubet (1971b). The importance of the site is indicated by its strategic location on a high promontory dominating a large area and commanding the natural communication routes from the interior to the Málaga coastal area and the Guadalquivir. The two burials were found in levels below the 'Iberian' fortification: they were simple inhumations in trench graves and are thought to have been part of a pre-'Iberian' cemetery. In Tomb A an ivory comb was found; in tomb B an alabaster unguentario (c.11cm high) and a number of vitreous paste beads were found. Nearby, a neck sherd of an urn similar to those found by Bonsor in the Alcores cemeteries was noted by the excavators: it had



black and red painted zones on a cream background (Aubet 1971b, Figure 1). This sherd may represent an urn that was originally part of the contents of tomb B, since Aubet believes that both tombs were disturbed.

Aubet related the OSUNA alabaster urn to one found in a cremation burial in tumulus H at ACEBUCHAL, Carmona (Prov. Sevilla) (cf. Bonsor 1899, 29 and Figure 25) which is thought to date to the mid 7th century: it is one of the earliest of the Alcores burials.\* Another similar alabaster vessel (c.17cm high) is known from an inhumation in Tumulus I at SETEFILLA, Lora del Río (Prov. Sevilla) (Bonsor and Thouvenot 1928, 42, Figure 32; Aubet 1971b): this vessel, which has no handles, was found associated with engraved ivories and various weapons. All 3 alabasters are illustrated in García y Bellido (1970, Figures 14-16). Another parallel of 8th or 7th century date is cited by Aubet from the HILL OF JUNO cemetery at Carthage. Aubet recognises

- (a) that they are oriental types, related in material and some typological aspects to the larger vessels of Cadiz province and LA JOYA, Huelva;
- (b) that their occurrence here is 'connected with Phoenician trade and colonisation' (1971b, 115).

She does not try to explain their occurrence in these indigenous contexts nor their significance.

The more recent finds of alabaster vessels are from the cemeteries of LA JOYA and TRAYAMAR. At LA JOYA, an alabaster vessel, with a marked neck and 2 small handles, with a stopper, was found with a piece of a larger neckless vessel and a small rounded container (similar to that found at TOSCANOS (Lindemann et al 1972, Abb.9a)). They were found in tomb 9 with an inhumation and a cremation. Under the inhumed remains (of a young male) the excavator claims that a 'bronze shield' (probably a 'brasero' of c.45cm diameter) was found with an iron knife; on the leg, 4 undecorated ivory plaques (7 x 5 cm) were found, on which the 4 pattern burnished vessels (discussed above) were found. Together with

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\* According to Bonsor, who did not excavate this tumulus, it was found among ashes in a 2-handled globular urn, together with 2 large gold earrings (made of 'feuilles de cuivre plaquées d'or') and a gold ring (Figures 7-8), surrounded by piles of plates (pp.29-30).

the ashes in another area of the grave, a bronze torc, gold beads and a bronze belt hook were found. In the tomb, piles of red-slip and hand-made plates, and 3 Phoenician amphorae 'de tipo arcaico' were found (Garrido 1970, 39). A scarab, odd fragments of bronze, and 2 amber beads were the other grave goods. Most of the material contained in this tomb is of 7th century date, but the possibility of some material being added, or another burial included in the 6th century, cannot be excluded: the 7th century date of the majority of finds is given by their context in the sites cited above (also noted by Garrido 1970, 71) and at TOSCANOS (Lindemann et al 1971, 142).

The occurrence of the alabaster vessels in the two areas of obvious major interest to the Phoenicians in the West, as indicated by the location of their production centres and the evidence from the Huelva area, confirms the pattern of relations with the indigenous population predicted on the basis of the distribution of more common Phoenician material, ie. amphorae and other pottery, and the centre of their main activities. The confirmation of Phoenician relations with indigenous populations was symbolised by the presentation of alabaster vessels, denoting their recognition of the status of high-ranking members of the indigenous society, whose existence was known during the pre-Phoenician period, but not as clearly recognisable.

Ivory was the other category of material used to express this relationship between Phoenician merchants and the high-ranking members of the indigenous society. Ivory was used in the East almost exclusively for adorning or manufacturing items destined for royal use and their occurrence in the Guadalquivir and Huelva tombs should be viewed in this context (see Bonsor 1899, 1928; Bonsor and Thouvenot 1928; Engel and Paris 1906; Fernandez-Chicacarro 1947 for the original publications).

Gsell (1929, IV, 99) noted that ivory, probably locally obtained, was worked in Carthage and finds from tombs include a comb, mirror handles, pins, rings and wooden boxes with ivory - or bone - decoration. These, he suggests, were locally produced and he regards the Spanish finds, from Carmona, as Carthaginian products. Bisi defined 3 groups



of Carthaginian ivories, and related them to the Spanish finds (1968). Barnett (1948) suggested the possibility of Phoenician ivory workers being established in Iberia, which is not unlikely in the 7th century. Blanco (1960) supports this view that a Phoenician ivory workshop was founded in Iberia, as occurred in Etruria and Carthage. Winter (1971) considers the ivories found in Iberia to be Phoenician products and date from the late 8th and 7th centuries (according to the published summary of her paper). Harden also regards the ivory-work as 'clearly Phoenician in style, however debased that style has become in its western factories' (1971, 200), but he distinguishes Greek elements on some ivories, such as the kneeling warrior wearing a helmet engraved on the plaque from BENCARRÓN, Carmona, and he therefore considers some to be of 6th century date.\*

Albright's (1941) late 2nd millenium date for the Spanish ivories has been taken up by Freyer-Schauenburg on the basis of new evidence from Samos and an examination of Eastern ivories: this has not been found to be convincing and the refutation of her thesis by Täckholm has been discussed above.

Recent studies of the ivories by Blanco (1960, 3-25) and by Aubet (1971b) (summarised in Blázquez 1968, 149ff, and 1975 Addenda) have been concerned with style, techniques of manufacture and dating.

A characteristic group of ivory combs from OSUNA, grave A, and the CRUZ DEL NEGRO tombs, Carmona (where some of the most distinctively Phoenician gold finds were found), has been recognised by Aubet as:

'... un grupo de peines, cuyo estilo se caracteriza por su elevado esquematismo y estilización en la forma de los animales, especialmente en los de Carmona, y que, a su vez, presentan todos ellos

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\* A number of Greek bronze helmets are known from casual finds in southern Iberia: eg. a Corinthian helmet from the Huelva estuary of 6th century date (Boardman (1964, 221); another from Jerez, in the Guadalete (Péman 1940-41), of 7th century date according to Boardman (1964, 221, Figure 60) and Riis (1950).

idéntica forma rectangular, escotaduras laterales y decoración en zigzag o "dientes de lobo" a lo largo del marco que rodea el friso zoomorfo. Estas características comunes, unidas a la técnica del trazo y a cada uno de los motivos ornamentales, revelan claramente que todos ellos son obras de un mismo taller o, mejor aún, de una misma mano artesana. Esta serie uniforme, homogénea y, logicamente, contemporánea, la forman la gran mayoría de peines de la Cruz del Negro, tal como se ha mencionado, un peine ebúrneo hallado en la Colina de Juno, en Cartago, y por último, cuatro peines procedentes del Heraion de Samos.'

(1971b, 120)

Aubet presents a summary of the views and chronologies of many authors (p.122, note 43) and revises Blanco's classification. She maintains that the overriding similarity in content and general manufacturing techniques of the Iberian ivories indicates that they are products of a single - probably Iberian - production centre. The Iberian combs differ in form and manufacture from those found in the East and she claims that the Iberian combs were produced using an Assyrian engraving technique of the 9th and 8th century - based on finds from NIMRUD (which are probably Phoenician or Syrian products). Another ivory working centre would have existed in Carthage, producing the types described by Gsell which are not known in Iberia.

Her argument for a single production centre and a mid 7th century date for all the ivories found in the Guadalquivir (she does not take the Huelva ivories into account) is not totally convincing: the range of styles and techniques, as well as the forms and content, as observed by Blanco (1960), Harden (1971, 200ff) and Täckholm (1975) appears to be greater than what can reasonably be expected from 'una serie de variantes estilísticas de un mismo taller artesano' (Aubet 1971b, 126). Aubet diminishes the credibility of her argument further by firmly locating the production centre in Gadir, 'una gran metrópoli establecida en la región mucho tiempo antes'! (p.128). But, there is still no archaeological evidence for the foundation of Cadiz in the 7th century.



In fact, whether made in Phoenicia, Carthage or an Iberian-Phoenician centre, the significance of the ivories in the context of indigenous burials in the Carmona area, Lora del Río and Huelva remains the same. We can agree with Aubet that the ivories were reaching an indigenous elite. It is unfortunate that the burials from the Carmona and Lora del Río cemeteries cannot be clearly assigned to horizons that predated or were contemporary with the period of Phoenician contact. Thus, the burials of high ranking members of society whose graves included the items symbolising highest political rank to the Phoenicians and whose status had been confirmed by relations with the Phoenician merchants established on the south coast, cannot be compared with their predecessors' burials in which rank would have been represented by a different set of grave goods. The iconographic content of the Iberian ivories is frequently commented on as being 'degenerate' etc: the content of the ivories was not important; their presentation and possession were.

The existence of ranking within the indigenous populations - as best demonstrated by Schubart (1975a) for the 'Southwest', and exemplified by the L.B.A./E.I.A. Extremadura-Tagus area probably applied, possibly to a lesser extent, to the Guadalquivir and Huelva area populations too. The maintenance of an elite in the Huelva hinterland during the 6th century with increasing access to elaborate and exclusive oriental, or 'orientalising' items, is known from the tombs recently excavated in LA JOYA (eg. Garrido 1973) which included pieces of a wagon.

To summarise: it is proposed that the Phoenicians presented ivories and alabaster vessels to the highest ranking members of the local population with whom they established relations. In so doing they were following the Eastern practice, whereby the possession of alabaster and ivory were the attributes of highest political rank. They thereby confirmed - but did not necessarily create - the rank of the local 'elite'. Phoenician material, other than ivories and alabaster, and possibly certain categories of gold and silver work which were used for the establishment of specific relations, were more generally available. The latter included the contents of amphorae and the unguents probably distributed in the small 'oil-bottles' (described by Culican 1970b). These thick, rounded vessels

with small apertures which could easily be plugged, were the functional equivalents of the fine alabaster vessels in which small quantities of unguents and perfumes - for which the Phoenicians were famed - could be distributed. In fact, their absence in the Eastern homeland could be due to the fact that these vessels were designed and used in the Western sphere: they were easily transportable, strong containers, ideal for the small-scale distribution of the more valuable products of the larger amphorae. Fine wheel made wares, especially of red-slip or grey ware, which were either imported or locally made were, together with perishable items, used for general exchange by the Phoenicians. The high value of the Phoenician red slip wares is illustrated by the occurrence of single specimens, for example at CERRO DEL REAL, Orce (Prov. Granada) and LOS SALADARES, Orihuela (Prov. Alicante), as well as the use of red slip plates and flagons in the graves of Phoenician merchants, traders, navigators etc, of high rank in Iberia.\*

Due to the proximity of the sources of their production and distribution, and the nature of Phoenician activities in the south, these products could not have been monopolised by any single indigenous centre, since the scale of their production could always be increased in the factories and new points of access to other areas of the peninsula could easily be established by traders operating on the coast. But, let us concentrate on the two main areas of alabaster and ivory finds.

In the Guadalquivir valley, finds come from OSUNA, on the main route from the coastal area to the interior; from the Carmona area on the Alcores escarpment overlooking the vast fertile land of the Campiña, between the Guadiara and Carbones rivers which led from the Osuna area to the Guadalquivir; and from SETEFILLA, near Lora del Río, one of the many L.B.A./E.I.A. sites established at the foot of the Sierra Morena on the edge of the Guadalquivir valley. This area was known in Roman times as the granary of the Western empire and is still one of the most productive agricultural zones of the Western Mediterranean. It is possible

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\* Lindemann (1974) reviews the use of red slip wares and their characteristic combinations in Western Phoenician graves.



that in the 7th century too, agricultural products were easily produced in surplus here and the extent of agricultural activities in this area could undoubtedly have been sufficient to meet the needs of the 'factories' on the south coast.

According to Ponsich (1974, 219) the number of unexcavated tumuli along the escarpment of the Alcores far exceeds the number investigated by Bonsor and others in the late 19th century. Furthermore, large concentrations of pre-Roman pottery - including red slip ware - have been located on a number of sites along the Alcores in his survey, such as ALCAUDETE, and of course CARMONA itself (Carriazo and Raddatz 1961), and most of the modern towns along the Guadalquivir (including MACARENO, La Rinconada: now being destroyed by modern levelling operations and road building). Ponsich proposes that sedentism only began in the period of Phoenician contact, but this is clearly contradicted by the large number of the L.B.A. sites along the Guadalquivir and probably the Alcores escarpment, which continued to be used during the Iron Age.\*

The importance of the Huelva area to the Phoenicians has been established beyond any doubt, from the settlements in the city of Huelva as well as from the mining establishment of CERRO SALOMÓN. The establishment of relations with the indigenous inhabitants of the area was quite clearly of crucial importance for the existence of the Western Phoenician sphere and the finds of high-status commodities in Huelva, from LA JOYA will probably be augmented by others from the Niebla and possibly Ayamonte areas.

But, the use of alabaster and ivory by the Phoenicians themselves in Iberia gives us some indication of the importance of the Phoenicians who were involved in establishing the Western branches of the Eastern firms and 'haburs', organised the production of characteristic Phoenician

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\* However, the real intensification of agricultural activities in the middle reaches of the Guadalquivir is assigned to the 1st century AD when latifundia were established, irrigation organised and grain production on an enormous scale in the Campiña is indicated by the establishment of amphorae factories and ports on the Guadalquivir; whilst the olive cultivation in the Aljarafe area was similarly intensified (Ponsich 1974, 223ff).

material in the west, and were responsible for the establishment and maintenance of relations with the indigenous populations in order to secure the supplies of these resources in which they were interested and which were the reason for the establishment of the Western production centres. Although the Phoenician cemeteries in Southern Iberia can be roughly compared in form and content with those of other Western Phoenician areas, as Lindemann (1972 and 1974) has done,\* there are many features of the Iberian cemeteries for which no exact Western - or Eastern - parallels are found.

The use of alabaster amphorae as urns in the deep shaft graves of the CERRO DE SAN CRISTOBAL, Almuñécar (Pellicer 1962, 1963) and the ashlar block construction of the TRAYAMAR chamber tombs (Niemeyer and Schubart 1975) are recognised as distinctive features. Both cemeteries show the importance of collective burial and the possibility of later burials or offerings being incorporated into existing burials. This implies that the kin-based organisation of the firms and industrial activities observed in the Eastern Phoenician cities was extended to the West when 'branches' of the Eastern establishments were set up in Iberia (as in Carthage, cf. Gsell 1929, Ch.IV).\*\* The exceptional character of these tombs is incompatible with the view of Culican (1966), Blanco (1960), Pellicer (1962) and many others who regard the Phoenician establishments in Iberia as inhabited by refugees from the overpopulated Eastern homeland cities, or the besieged city-states constantly 'about to be incorporated' into the Assyrian empire. The Phoenician production centres must be regarded as the extension of the commercial organisations of the Eastern city-states in a new periphery, ie. southern Iberia, in order to extend their operations into the Atlantic sphere and create the new configuration of an Atlantic-Mediterranean network, the life of which depended on the needs of and demands on the Eastern city-states.

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\* I should like to thank Gerta Lindemann for allowing me to consult her unpublished thesis in Madrid in 1973.

\*\* Gsell (1929, IV, 107) noted that in the case of the industrial workshops in Carthage: 'D'abord leurs ateliers ne sont que les succursales de ceux de Phénicie'.



The burials of TRAYAMAR and ALMUÑÉCAR represent the special burial rites accorded the 'men of the city' - as they would be known in the East - who were involved in organising the Western industries and the concern of their kin groups to maintain the use of particular tombs and continue to place offerings in them. These men of rank who were buried in distant lands were the leaders of maritime expeditions, the craftsmen and the merchants. They were accorded exceptional elaboration of burial involving the use of alabaster urns and - in the case of a burial, or an offering, in TRAYAMAR 4, northern niche - a simple ivory box. In terms of some of the grave contents, and probably later offerings, the contents of these tombs resemble those of the Eastern and some Western Phoenician tombs: eg. in the East, red slip plates, flagons and lamps are found in ACHZIB, KHALDEH, ER-REQUISH (Culican 1968b, 1970c, 1973b).

The cemeteries of ALMUÑÉCAR, TRAYAMAR and JARDÍN also show that this Western Phoenician sphere was to a considerable extent independent of the Carthaginian sphere: only 2 Proto-Corinthian kotylae are known from ALMUÑÉCAR, grave 19 niche B, and the characteristic Carthaginian razors, etc. are not known in the West. A few decorated ostrich eggs have been found in ALMUÑÉCAR tomb 10 (Pellicer 1962) and JARDÍN (Schubart and Maass-Lindemann 1976).<sup>\*</sup> The occurrence of a seal-ring in the Phoenician tombs (eg. ALMUÑÉCAR tombs 3 and 16 (Pellicer 1962, 62, Lám.XIX) and a swivel seal ring from JARDÍN (Schubart, personal communication)) is another indicator of the 'occupation' of the deceased person. A seal represents a signature, a personal guarantee which is terminated at death. Gsell (1929, IV, 113) comments on the fact that when Carthaginian merchants established contracts with Greek or Roman traders - in the 5th and later centuries - the obligations were hereditary, an indication, perhaps, of the continuity of the kin-based organisation of 'firms' and workshops as known from the Eastern city-states from the 10th century onwards.

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\* Ostrich eggs are only known in quantity in the 4th (possibly 5th) century graves of VILLARICOS (Siret 1907, Astruc 1951), although the settlement there appears to have been established in the 6th century. It is interesting to note that Pascual Guasch has identified a 3rd century Punic type of amphora whose distribution appears to be limited to part of the 7th century Western Phoenician sphere, ie. Southern Iberia and Morocco (1969)

The widespread use of Phoenician introduced 'luxuries' is known from the non-perishable materials, such as bronze, silver, gold, ivory, amber, iron, alabaster, and pottery: their distribution is clearly concentrated in Andalusia and Atlantic Iberia (mainly Central Portugal and Extremadura). Although the finds of Phoenician goods cannot be dealt with in detail here,\* their distribution and the context of their occurrence, as far as it is known, is important.

The most important find of Phoenician and Phoenician influenced goldwork comes from LA ALISEDA, 30 kilometres west-south-west of Cáceres, near a tributary of the Tagus. The finds were first published by Melida (1921) who suggested that they came from a tomb. More recent discussions of the material are to be found in Blanco (1956), García y Bellido (1970, 25-6), Harden (1971, 206-7, 96-8, 212-14), Blázquez (1968, 115ff), Culican (1958, 1973a) etc.

The goldwork includes a belt with granulated and embossed decoration, a diadem, 3 necklaces, 2 bracelets, earrings, pendants, rings, including a typical Phoenician signet ring with an amethyst scarab (Culican 1970a, 33), gold beads, amulet cases, crescents, discs and seals. The motifs of decoration include characteristic but debased Phoenician motifs of palmettes, griffons, lions. Two silver 'braseros' were found nearby, together with coarse pottery vessels (Melida 1921, 10). One was broken - the fragments weighed 0.984 kg - the other had a hand-attachment, was c.45cm wide, and weighed 1.425 kg (Blázquez 1968, 107, Lam.29-30).

The goldwork, now more conclusively dated to the 7th century by other finds from Iberia and the Western and Central Mediterranean (eg. Culican 1973a) was associated with a clear green glass piriform vessel, bearing a garbled Egyptian hieroglyph and cartouche, which is thought to be a Phoenician product, possibly made in Assyria where most glass of

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\* Blanco 1956, 1960; García y Bellido 1956, 1960, 1964, 1966, 1970; García y Bellido et al 1971; Cuadrado 1966; Blázquez 1963a, 1963b; Carriazo 1973; Culican 1968b, 1970b, 1973a; Niemeyer 1970.



this type - but not shape - is found (Harden 1971, 145). Culican recognises it as related to the

'series of bronze and silver jugs found in Cyprus, Etruria and Spain and declared Phoenician not only on account of this shape but also because of the palmette attachment at the joining of the handle and body, and generally agreed to be of the 7th century.'

(Culican 1958, 98)\*

García y Bellido (eg. 1970) supports this chronology and uses it to date the GAI0 treasure, from near Sines (Baixo Alentejo), and other finds of elaborate Phoenician earrings from Andalusia (unknown provenance, see Blázquez 1969, Lám.50A); and one from SETEFILLA, Lora del Río (Prov. Sevilla) which García y Bellido illustrates, Figure 43, and which is also discussed by Aubet (1974b).

The GAI0 goldwork, including a necklace of 16 identical sheet gold pieces with griffin and palmette decoration, 2 earrings, associated with a necklace of glass paste, glass, 'tin', and amber beads, and glass unguentaria, was found in a stone cist tomb; nearby a piece of a plain solid bronze ring was found and a grey clay ring, like those found at LOS SALADARES, Orihuela (Prov. Alicante) and SANTA OLAYA, Figueira da Foz (Beira Litoral) (Da Costa 1966). The jewellery is best illustrated by García y Bellido (1970) and Farinha dos Santos (1972, Figures 157-8). García y Bellido dates this group of finds to the mid 7th century on the basis of the vague similarity of the decoration of the necklace with the ALISEDA belt. This date may be correct for the goldwork and some of the associated material, but is probably too high for the glass unguentaria and 'eyed' beads, which are usually dated to the 6th century or later. Harden, with reference to Blanco (1960), notes that:

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\* He discusses the parallels for the jug in Etruria, in a 6th century grave, and in Assyria and Egypt dated to the late 8th and 7th centuries. The closest parallel comes from the tomb of Queen Khenisa, buried between 690 and 664 during the reign of Taharqa. Von Saldern (1970) considers it to be an Assyrian or Syrian product of the 7th century.

'Though some of the ALISEDA jewels, such as the signet ring, are purely Phoenician, others, while showing many Phoenician elements, reveal certain alien traits as well. The necklaces may perhaps come from Carthage, and the signet ring from Phoenicia, but the other items are now thought by Blanco to be Tartessian, a culture which had, he thinks, by this time become a mixture of indigenous and oriental influences.'

(Harden 1971, 207)

As other examples of this 6th century 'Tartessian' goldwork, Harden (1971, note 286) cites the EL CARAMBOLO treasure, from Camas (Prov. Sevilla), which included 2 pectorals, 2 bracelets, a necklace with pendants in the form of seal-rings, 16 decorated plaques (Kukahn and Blanco 1959; Carriazo 1970a, 1973; Blázquez 1968, 138ff). The treasure was found in 1958 on what was later recognised as an important indigenous L.B.A. and E.I.A. settlement. The treasure itself cannot be dated to earlier than the 6th century (Blázquez 1968, 143).

The ÉBORA (or ÉVORA) treasure found in 3 parts in Sanlúcar de Barrameda (Prov. Cadiz), contained 93 pieces of gold jewellery including bracelets, earrings, rings etc, as well as 43 pieces of cornelian. The finds come from a site established during what Carriazo describes as a 'gran florecimiento en la Edad del Hierro' (1973, 413). He illustrates considerable quantities of late red slip and painted wares, similar to Iberian wares in the Southeast, and related to material from MESAS DE ASTA and other 6th or 5th century sites in the Southwest. (The main publications of the jewellery are: Blanco de Torrecillas 1959; Carriazo 1970a, 1970b, 1973, 326ff; Blázquez 1968, 138ff.)

Phoenician style goldwork is also known from an earring, gold amulets and beads, found at SETEFILLA (Bonsor and Thouvenot 1928; Blázquez 1975, 396, citing Aubet 1974b (which I have not been able to locate); García y Bellido 1970). Some finds come from a cremation in the CRUZ DEL NEGRO necropolis, near Carmona (Prov. Sevilla (Bonsor 1899, 79ff, Figures 76-90) including gold and silver beads (cf. Culican 1973a), signet rings with swivel scarabs, 'agate' beads, etc. Others are known from LA JOYA, eg. tomb 9, Huelva (Prov. Huelva) (Garrido 1970). All this material comes from indigenous tombs of 7th and possibly 6th century date.



Culican regards some of the characteristic Phoenician - and later Punic - gold earrings to be represented amongst the Iberian finds, eg. from the Carmona area, where the plain gold leech earrings are of the same series as those with wire wrapped round the body of the ring which are known from the west coast of Portugal. He suggests that 'they were brought there by Western Phoenician merchants visiting the Tagus estuary' (1973b, 35, note 9).\*

The finds of LA ALISEDA and GAI0 provide more convincing evidence for the presence of Phoenician merchants along the western coast of Iberia. Another category of Phoenician introduced bronzework, whose Atlantic distribution has been shown by García y Bellido (eg. 1964, 1966, 1970) are the piriform bronze flagons of characteristic Phoenician form and decorative elements (eg. Harden 1971, 135).

García y Bellido (1966) has redefined Blanco's original grouping of the flagons (1956). Figure 24 shows their distribution: the map is taken from García y Bellido (1970, Figure 38) to which new finds from TORRES VEDRAS and LA JOYA (graves 5, 17 and 19) (Garrido 1970 and 1973) have been added, but not drawn. Groups A and B are piriform, all have Phoenician palmettes at the base of the handle: group A includes the flagon found with a 'brasero' in Carmona (Tumulus of LA CAÑADA DE RUIZ SANCHEZ, Bonsor 1899, 55ff, Figure 53) found together with iron spearheads etc in a deep central grave where an in situ cremation is thought to have taken place; a tumulus was built on top of it). It is the only flagon found in the Guadalquivir valley. A palmette of a bronze flagon found in Málaga, possibly on the Alcazaba, represents the most 'oriental' of the Spanish flagon ornaments, according to García y Bellido (1966). The COCA flagon (Segovia) and the glass vase from LA ALISEDA are also included in group

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\* Culican cites a number of finds from publications by Heleno and Cardozo which are not always very accurate; some are in fact of Eneolithic date. Farinha dos Santos (1972, 165ff) records that leech-shaped earrings are found at SAN MARTINHO DE ANTA, Sabrosa, in the 'castro culture' context, but not at the other sites noted by Culican. The former mentions Punic influenced earrings from further south, but of unknown date. See Blázquez (1963a) for 'orientalising' earrings and cylindrical pendants, medallions etc from Extremadura.



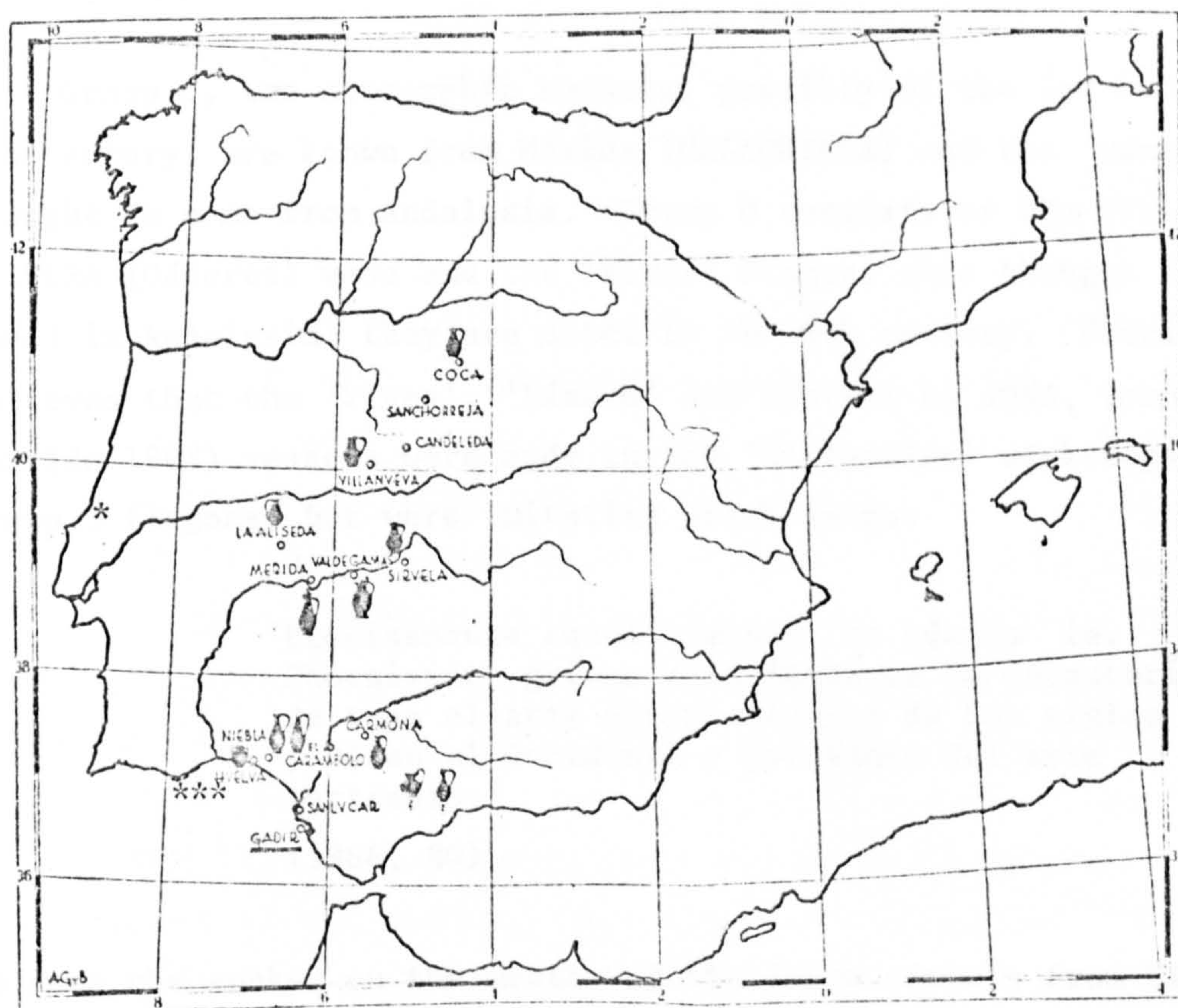


Figure 24: Distribution of bronze flagons. (García y Bellido 1970, Fig. 33, with additions \* from Garrido 1970 and 1973).



A: he believes them to be imports, dated to the late 7th century. Group B, on the other hand, he sees as local, ie. 'Tartessian' products: it comprises the 3 largest flagons, 2 from NIEBLA and the SIRUELA flagon which he dates to the 6th or possibly 5th century according to the 'regla según la cual las formas gigantes suelen a veces preceder inmediatamente a la extinción de la especie' (p.79).

Group C, the zoomorphic vessels, possibly of the 2nd half of the 7th century, are known from Mérida (CALZODILLA) and the 'Lázaro' vase, thought to come from Andalusia. Group D consists of the VILLANUEVA DE LA VERA (Cáceres) vase and the 'Vives' flagon, also thought to have been found in Andalusia: they are dated to the 8th century. García y Bellido believes that the 'Vives', 'Lázaro' and Huelva, LA JOYA, tomb 1 (Orta and Garrido 1963) vessels were made in the 'Tartessian' workshops that produced Group B flagons, but were imitating Greek forms:

'Precisamente aquella mezcla de púnico ie. Phoenician griego e indígena es la característica de todo el arte orientalizante de los siglos VII y VI en el Occidente y por tanto del arte tartessio.'

(1966, 80)

He sees the snakes on the mouths of the large vessels from NIEBLA, SIRUELA and VILLANUEVA as the most indigenous, and therefore important, feature of this group of vessels. A 'Rhodian' flagon was found in LA JOYA, tomb 5 (Garrido 1970) with a 'brasero': García y Bellido dates the find to the mid 6th century (1970, 33) and notes the Central Mediterranean, and even Central European (VILSINGEN) parallels for this vessel. Other vessels of this type found in Spain are known in The Hispanic Society collection, New York (eg. Culican 1968b). García y Bellido regards the LA JOYA 'Rhodian' flagon as an Etruscan, Phoenician or even indigenous product. Culican (1968b) views the LA JOYA, tomb 1, vessel, with 2 handles on the shoulder, as an imitation of the characteristic Western Phoenician 'urnes céramiques d'un type à deux anses et à panse globulaire' (p.275) as known from North African sites and the Carmona necropoli, now from CORTIJA DE LAS SOMBRAS too. This would be the reverse of the usual

Phoenician practice of imitating metal forms in clay, cf. the piriform flagons in the 8th century, and the 'kraters' in the L.B.A. (Culican 1968b).

Culican disagrees with the sole attribution of the zoomorphic vessels to Iberian workshops, since they occur in Etruria too, ie. in red slip (1968b). He agrees that the Phoenician palmette is distinctive and notes that the two 'branches' on either side of the lotus are characteristic features of the Iberian vases, as represented by the NIEBLA and SIRUELA flagons.

Pottery piriform vessels are known from ACHZIB and KHALDEH and therefore the use of metal prototypes in Phoenicia and Cyprus before the 7th century can be assumed. A 'composite' flagon is known from SIDON and is compared by Culican with the VILLANUEVA flagon, although the SIDON handle terminates in a lotus on the mouth. Culican proposes that the Etruscan flagons - bronze, silver and red slip - and those found in Iberia, represent the products of different, possibly contemporary, workshops. He notes that the Carmona flagon is the only Iberian find with a concave base, as found on the red slip vessels of the same shape, and suggests that it represents an exception to the general pattern, ie. was a product of the workshop that produced the flagons found in Etruria (1968b).

It is significant to note that the bronze flagons found in Iberia occur - as far as known - only in indigenous context and the red slip vases imitating the metal form are common in the East (cf. KHALDEH and ACHZIB) and are also found in Western Phoenician cemeteries in Iberia, ie. ALMUÑÉCAR, in the CERRO DE SAN CRISTOBAL, and TRAYAMAR. Therefore, despite the fact that Phoenicians were carrying bronze vessels to the west, either from the Eastern Mediterranean or Central Mediterranean workshops, or even producing them in the west, they themselves did not use them as tomb contents. This is another indication of the deliberate use of certain commodities for exchange, or gift-giving, in the context of relations with the indigenous populations of the peninsula.



Another category of Phoenician - or Phoenician introduced - bronze-work is represented by the 'braseros': shallow bronze plates, usually with ornate attachments for the handles fixed to the underside of the rim and sometimes with elaborate rivet heads on the upper side of the rim (see Cuadrado 1966; Garrido 1970; Bonsor 1899; Blázquez 1968 and 1975). Culican (1968b and 1970-71) points out that 3 'braseros' with hands on the handle attachment - a characteristic feature of the Iberian finds - were found in Egypt in the necropolis of SANAN: one in a mid 7th century context. He suggests that the Egyptian and Iberian finds may represent the relics of a Phoenician bronze production centre. The only fragment of a 'brasero' known from a Phoenician context in Iberia is the handle from the 7th century Tomb 1 in the CERRO DE SAN CRISTOBAL, ALMUÑÉCAR (Pellicer 1962, 106, Figure 5). In Iberia the 'braseros' continued to be used in the 6th and 5th centuries.

The association of piriform flagon and 'brasero' is known from a tomb in TORRES VEDRAS (Estremadura) (Trindade and Veiga Ferreira 1965; García y Bellido 1970, 28ff, Figures 27-31). The flagon resembles those of COCA, Carmona, ALANJE, SIRUELA and NIEBLA. The only other 7th century combination of these two vessels, in bronze, is from CAÑADA DE RUIZ . SANCHEZ, Carmona. And from LA ALISEDA, there is the glass flagon associated with silver 'braseros'. The associations of bronze flagons and 'braseros' recorded by Garrido (1973) in tombs 17 and 18 of LA JOYA are probably of 6th century date, as the associated remains of 'carros de guerra' would suggest.

One of the large bronze flagons from Niebla is said to have come from a tomb at EL PALMERÓN, 2 kilometres north-east of Niebla. Pingel (1975a) lists the associated finds as a 'brasero' handle with 5 rosette-rivets; 2 small bronze rings, a small decorated silver rod; an ornate belt plaque (made of a tin alloy, according to Blázquez 1968, 68), an iron sword with a rhomboid section blade, 2 socketed iron spearheads, 2 iron ferrules, several fragments of iron. The tomb is also said to have contained a silver 'brasero', a silver diadem with beads, and gold beads (eg. Blázquez 1968). This flagon, and its associated finds, are dated to the 6th century. Blázquez regards the fretwork belt-hook as

a 'Tartessian' product, which he compares with examples known from AZOUGADA, Moura (Baixo Alentejo) and SANCHORREJA (Prov, Salamanca) (1968), 89ff, Figure 33).

In addition to these bronze vessels, another series of smaller bronzes appear together with the earliest Phoenician material in the Southwest. It includes fibulae, of the stilted bow, double coil and Bencarrón types; belt-hooks of the multiple hook, serpentiform (counterpart), and Acebuchal type, bronze bracelets with expanded ends (probably an Atlantic product) and tweezers,

Blázquez, following Cuadrado (1961) regards the serpentiform belt-fasteners, as found in ACEBUCHAL, Tumba A, and ALCÁCER DO SAL as 'un nuevo indicio de la presencia de los indoeuropeos en la Ría de Huelva' (1975, 390). But, these belt-hooks occur in indigenous contexts in unambiguous association with Phoenician material of 7th century date, eg. in LOS SALADARES, level I - B2 (Arteaga and Serna 1975, Lám.XVII, 131) together with a double-coil fibula. The double-coil fibulae are found within and among many of the CORTIJO DE LAS SOMBRAS, FRIGILIANA tombs (Arribas and Wilkins 1969), together with belt-plaques, tweezers, a scarab (in tomb 13), and bronze leech shaped pendant (tomb 9). The flat belt-plates with multiple hooks, as found in FRIGILIANA, are known from LA JOYA, tomb 9 (Garrido 1970), and in the cemeteries of the Carmona area (Bonsor 1899, 81-2, Figure 91; Monteagudo 1953, Figures 11 and 12) mainly from the CRUZ DEL NEGRO cemetery, where bronze bracelets were also found in some quantity. In LA JOYA, tomb 9, the belt plaque was associated with ivory plaques, pegs and rivet heads (Garrido 1970, 39ff) as well as alabaster vessels, gold and amber beads, an iron knife, a scarab and various other beads. On the CERRO SALOMÓN, a Bencarrón type fibula was found: its probable 7th century date here is important for the dating of other fibulae of this type found at SANTA OLAYA and CRASTO, in the Figueira area (Schüle 1961a, Abb.14; Cuadrado 1963, 31, Figure 6 b and c; Schüle 1961b, Figure 19). The CERRO SALOMÓN find supports Schüle's argument for the development of the cross-bow and decorated-foot fibulae in Iberia, before they were used in Hallstatt D 2 contexts in Central Europe (1961a; 1961b; 1969a, 64ff).



The introduction of iron technology in Iberia can also be attributed to contact with Phoenician traders possibly in the late 8th but certainly in the 7th century. Evidence from the tombs, both Phoenician and indigenous, as well as from settlements, makes this quite clear. In fact, the penetration of iron technology into the Meseta is more likely to have taken place from points of contact with Phoenicians and their intermediaries on the Atlantic and Mediterranean coasts, than from Central or Southern Europe, as is generally assumed.

Points of contact, linking indigenous coastal populations and Phoenicians, can be identified on the Atlantic and Levantine coasts of Iberia. The inland penetration of certain types, such as glass and amber beads, associated with iron and a scarab (which is a 6th century product of Naucratis, according to Gayer-Wallert 1975) is known from the cemetery of MONTE DE A-DO MEALHA-NOVA, Ourique (Baixo Alentejo), and a bronze belt-plaque with 2 hooks, like those of CRUZ DEL NEGRO, was associated with iron in tomb III of the nearby cemetery of HERDADE DO PEGO, probably also of 6th century date (Alves Dias et al 1970); some of the pottery associated with the burials and found amongst the tombs resembles material from the Figueira area (see Appendix 1).

Schüle's (1969a) Tagus Culture is much more likely to have been a development of contacts between the populations of the southern Meseta, and the Tagus valley with the trading posts on the Atlantic coast: his hypothesis of 'Kulturströmungen' resulting in the establishment of populations from the Eurasian steppe, and in the case of the Duero Culture from the Balkans, is neither plausible nor capable of being proved, or for that matter disproved (see 1969a, 170ff for a summary of his ideas).

The evidence for Phoenician involvement in the late 8th and early 7th century Atlantic trade is known from the bronze and goldwork finds, described above, which clearly indicate the distribution of Phoenician imports and the acquisition of Phoenician technical skills by indigenous

metalworkers. Further evidence comes from the ALCÁCER DO SAL area, where an important cemetery is known.\*

In the Figueira da Foz area (Beira Litoral) at the mouth of the Mondego, a group of sites investigated by dos Santos Rocha indicates the existence of another point of Phoenician contact on the Atlantic coast, probably established during the 7th century. The 'outeiro' of SANTA OLAYA (OLAIA) between Maiorca and Montemor-o-Velho on the right bank of the Mondego, was excavated by dos Santos Rocha in the 1890s. The excavation revealed large quantities of painted wares, for which he initially proposed a Roman or Arab origin: he then excavated the site of CRASTO, east of Casal da Serra, Brenha, and CHÕES, 200 metres north of Brenha (c.14 kilometres north-north-east of Figueira) in order to find out more about the painted wares (1897).

Although well informed about European archaeology, and Punic archaeology, having himself excavated part of the necropolis of FONTE VELHA, Bensafrim (Algarve), his excavation - although claiming great detail and observation of stratigraphy - did not quite match his academic erudition. (Recent efforts to expose the walls of the site, ie. by digging along them, have probably destroyed any undisturbed evidence that may have been left.) Originally, the small hill was a promontory on the mouth of the Mondego, which has since silted up. Plate 1 (Appendix 1) shows a view of the hill, from the West. Santos Rocha suggests that it was almost an island when first occupied, therefore requiring no fortification (1905-08, 310-11). The fortifications, or walls, he located on the site of CRASTO are of uncertain date.

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\* Unfortunately the finds from this cemetery have been distributed to various museums - and possibly private collections - in Portugal, and a corpus of the finds cannot be compiled. Appendix 2 presents some of the finds from the Museum of Alcácer do Sal; others from the Belem museum, recorded by Dr. H. Schubart; and finds from the Institute of Classical Studies, Coimbra University.



The material from all 3 sites can be used to identify the existence of a local L.B.A./I.A. population, in contact with Phoenician merchants or their intermediaries in the 7th and 6th centuries.\* The vast majority of pottery from all three sites consisted of hand-made coarse and fine wares: in addition there are the 'exotic' wares, eg. amphorae, fine plates of red slip or grey ware, and finally 2 Campanian sherds. The local potters came to imitate the imports, and many of the decorated storage vessels appear to be indigenous developments of Phoenician proto-types. It is interesting to note that there is no material that can be seen to resemble the 'Iberian' painted wares, with wavy line and concentric circle decoration, nor any Greek imports, which do not appear to have been traded further north than Alcácer. Significantly, none of the characteristic Phoenician and Phoenician derived material known in such quantity here, at the mouth of the Mondego, is known from further north, neither in Portugal, nor Galicia.\*\*

The fine hand-made wares, usually with highly burnished surfaces, are characteristic of the L.B.A. Of general late L.B.A. and I.A. date there are the many coarse wares, often in the form of closed vessels; many are short-necked globular vessels with incised decoration on the rims. These are probably contemporary with the imported fine wares and the beginning of the manufacture of wheel-made fine wares at SANTA OLAYA. Some of the imports, as well as local copies, penetrated further inland along the Mondego and are known from CONIMBRIGA, Condeixa-a-Velha. Characteristic of the late I.A. are the very fine, hard, grey wares, sometimes with burnished or incised decoration, which are well known throughout this area.

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\* It was possible to record a large amount of the material from the Iron Age levels of these sites, particularly that of SANTA OLAYA, in 1972 and 1973 in the Museu Dr. Santos Rocha, Figueira da Foz. Unfortunately, due to the fact that the material was being moved to new premises, some material could only be briefly noted, and some not recorded at all. Appendix 1 should therefore be regarded as a collection of the most characteristic as well as the most distinctive wares from the Iron Age settlements in the Figueira area, but must be recognised as a selection.

\*\* This has been ascertained by visiting museums in the northwest examining as many collections as was possible.

The main observable material influence of the Phoenician or Central Portuguese contacts is seen in the fine grey ware, which often imitates the Phoenician red slip wares, as well as the characteristic bowl with interior thickened rim known in grey ware from Phoenician and indigenous centres in the south and Extremadura (Almagro Gorbea 1971, 191). A series of red/brown slipped, or painted plates is found: sometimes with flame decoration or stripes. Some of the prototypes for these plates are found on the sites, ie. some of the red slip plates, as well as other wares and forms, were probably imported from the south. The amphorae represent variations of the Phoenician amphorae known from the south, eg. at TOSCANOS, TRAYAMAR and the Huelva settlements and cemetery of LA JOYA. The storage vessels with 2 handles resemble the 'urns' of the Alcácer do Sal, the Alcores cemeteries and Frigiliana, ie. a characteristic Western Phoenician form. The 4-handled amphorae are also known from southern Phoenician sites, but the decoration of the SANTA OLAYA specimens appears to be peculiar to this site. The occurrence of stamped and incised decorated wares could be an indication of more general connections with the hinterland during the last few centuries BC, when the Atlantic coastal zone north of the Tagus and the Northwest in general had become peripheral to the major Roman development of the centre and south, only to be revived with the beginning of large scale Roman exploitation of gold in the Northwest in the 1st century AD (cf. Bird 1972).

Direct parallels with other 7th century Phoenician material is seen in the fine grey ware, sometimes hand or wheel made, which was used to make clay stands for pots, and bowls with handles which went over and along the rim, Plate 17. Both forms have parallels in LOS SALADARES, Orihuela; the clay ring is similar to one from GAIA, found near the contents of the tomb (described above) (Arteaga and Serna 1975, Lam.XXXI, 232 and Figure 9; da Costa 1966).

Despite extensive Roman and Mediaeval building on the site, dos Santos Rocha claimed to recognise 4 pre-Roman levels in the 1903 excavations, one of Neolithic date, 3 of Iron Age date. The 1st (latest) pre-Roman Iron Age level, to which houses n, o, p. v and y are assigned, are said to have been undisturbed by Roman building:



'O espólio compõe-se principalmente de cerâmica exótica, pintada o não, associada a louça indígena de pasta grosseira trabalhada à mão e às vezes com roda, recolhido em todos os pavimentos das casas e na referida villa. Os tipos são precisamente os mesmos dos povoados inferiores, com raras excepções.'

(1905-08, 316)

The only difference in material he notes between the levels is that the amphorae of CRUZ DEL NEGRO type are only found in the lower and middle settlements. The second I.A. level, to which houses h, i, j, e, k, l, m, q, r, s are attributed (although some contained Roman material too) also contained bronze fibulae and rings, stone querns. The 3rd (oldest) level to which houses a, b, c, d, e, f, g, t and t<sup>1</sup> are assigned contained similar material to the other two phases; some iron slag is said to have been found in some houses, iron implements in house e; there were also bronze rings, fibulae, and 2 glass beads in house f. In general, the material culture of the 3 successive stages of Iron Age occupation defined by dos Santos Rocha are, according to him, so similar that no real differences between them can be identified.

dos Santos Rocha notes that the material from both SANTA OLAYA and CRASTO (1905-08, 509) shows indigenous adoptions of 'exotic' forms (cf. Figures 383, 398, est.XXXV), as well as changes in pottery technology, is observed in the beginning of the use of the wheel and the variety of materials used as filler.

dos Santos Rocha notes that the material within the houses is found more or less complete (even if broken) as though the houses had been abandoned. But some deposits that he considers to be house floors appear to be rubbish heaps, eg. in the northwest of the site. Hearths are said to have been recognisable in concentrations of ashes, sherds and burnt earth within the houses, and he claims to have located a kiln. Iron working is attributed to all phases of the Iron Age settlements, and tuyères are illustrated (1905-08, Est.XVIII, 18, 19). Bronze or 'copper' finds are cited and illustrated: no bronze slag or moulds are found. Est.XX, 61 shows a characteristic 'brasero' handle attachment.

Various tweezers, Acebuchal type belt hooks from CRASTO, Brenha, and SANTA OLAYA; Bencarrón, Acebuchal and other types of fibulae are known too (Cuadrado 1963, Figure 6 b and c; Schüle 1961b, Figure 19). Leech pendants were found in some number (Est.XX, 50).\*

Similar pre-Roman finds are claimed from a castro to the south of the Mondego at BIZORREIRO DE CASTELLO (dos Santos Rocha 1907); and from the tumulus of FERRESTELLO, where he suggests that the occurrence of Iron Age material is related to the desecration of tumuli, rather than their use as burial places, during the Iron Age (1908).

The sites of CRASTO and CHÕES represent indigenous centres, like SANTA OLAYA, that appear to be receiving some products of the coastal trade, cf. bronzes from CRASTO, red slip ware from CRASTO and CHOES, but do not appear to have had the collection, storage and redistribution functions that can be attributed to SANTA OLAYA. The number of amphorae and large 4-handled, as well as smaller 2-handled or simple storage vessels known from the site, together with the imported wares and metal-work, would indicate the role of SANTA OLAYA as a regional centre and a type of 'port of trade' in the Atlantic network. It may also have functioned as a production centre and the number of whorls, weights of various kinds (often described as net-weights) found on SANTA OLAYA and at CRASTO (dos Santos Rocha 1905-08, XXVIII, 243-54, 257-65 whorls; XXIX, 266-77; XXXVI, 435, 447, 449 'loomweight'; 450, XXXVII, 473-4) suggest that the production of cloth may have been an important function of SANTA OLAYA, and possibly its neighbouring settlements too. It is not unlikely that plain cloth would have been in demand in the Phoenician centres in the south, where the dyeing and other processing would have taken place. H.-P. and M. Uerpmann note that in the case of TOSCANOS, the small proportion of sheep represented in the faunal remains indicates that 'eine eigene Wollproduktion in der Faktorei nicht angestrebt wurde. Wolle war sicherlich ein wichtiges Handelsgut der einheimischen Bevölkerung im Hinterland' (1973, 93).

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\* The 'La Tène' date and the Iberian-Etruscan connections of SANTA OLAYA suggested by Seguro Pereira (1965) do not appear to be correct.



The cemetery of ALCÁCER DO SAL has been known since the first graves were accidentally excavated in the 1870s; another group of c.130 graves was found in 1925 and excavated by Virgílio Correia. The existence of two superimposed levels of graves are claimed by Costa Arthur (1952).

Correia (1928) identified several types of graves:

- (i) an inurned cremation, covered with a plate, in a shallow grave, with weapons - often burnt and folded 'falcatas' and spearheads, jewellery - including belt hooks and fibulae - unguentaria, and whorls. Greek wares were found in some of these graves.
- (ii) Cremations in urns in graves dug into the rock, the urns covered with a piece of slate: some contained single-spouted lamps and occasionally bronze or iron pieces were found in the graves; some of the urns were decorated with red or brown bands and were thought to be related to North African Punic finds.
- (iii) In situ cremations, burnt weapons, vases and jewellery: the position of the bronze bracelets and iron spearheads shows that the cremation was in situ: some are associated with small handled vessels, others with lamps (single-spouted), spindle whorls, gold rings, spearheads, knives, belt-hooks, annular fibulae, and a hollow bracelet with leech pendants.
- (iv) 'Shaft' graves, in which cremations were associated with vessels, weapons, jewellery, as well as 'musical instruments' and a 'chariot', and animal bones.\*

Unfortunately, records were not kept during the excavation and only some of the material is attributable to individual graves.

Correia (1928) regarded the first group as the latest but within the other three he saw no chronological differences 'visto que hà, no conjunto, uma grande homogeneidade de espólios' (1928, 200 or 1972, 178).

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\* A similar variety of tombs has been described by Garrido (1973) for the LA JOYA cemetery, which is dated to the 8th to 6th centuries: he claims that no two tombs are alike and that the combination of pottery types within the graves shows the painted wares, Phoenician amphorae, pattern-burnished and painted, red slip and grey wares all to be contemporary.

He identified the cemetery as one of an indigenous population in contact with 'Mediterranean navigators' rather than a cemetery of any Mediterranean peoples.

Correia presented various categories of material from the cemetery (1925c), including the 7th century Egyptian scarab (1925a), belt hooks (1925b) and fibulae (1930), one of which was of the double spiral type. Da Costa Arthur (1952 and 1956) has dealt with some of the Greek material and possible associations of the 4th century, but is determined to relate the beginning of iron-using - and hence the cemetery - to the arrival of Late Hallstatt Celtic people. De Ascensão e Brito (1968) has presented a catalogue of some of the metal finds from the cemetery, including the now lost double-spiral fibula and one of Acebuchal type (pp.179ff). These fibulae, and some of the belt-hooks, suggest a 7th century date for the beginning of the use of the cemetery (cf. Schüle 1961a, 1961b). The bronze bracelets appear to be associated with 4th century finds, as indicated by the Greek material found on the site (see Rocha Pereira 1962; Trías de Arribas 1967-68). Trías comments on the small amount of 4th century Attic imports in the Alcácer area and the Tagus estuary: only 6 finds are known.

Schüle (1969a) has listed and illustrated many of the metal finds (280ff, Taf.88-110) and in some cases the pottery associated with the metal finds of known provenance are illustrated too. In Appendix 2 some of the unpublished pottery from ALCÁCER DO SAL - mainly of 7th. and 6th century date, but some possibly later too - is illustrated and the context, where known, indicated. Some of the vases are illustrated by Schüle, but the drawings are taken from photographs. The adoption of Phoenician forms of urns, amphorae, plates and lamps by indigenous potters appears to have followed the use of some apparent imports from the south coast. Some of the urns, and probably most of the red slip plates and single-spouted lamps, are Phoenician products, obtained through the maritime connections with the southern centres.

By the 4th century a route to the southwest via the Guadiana was in use, as known from finds from the castró of AZOUGADA, Moura (Baixo Alentejo), where red slip bowls of Cuadrado's 'Iberian types' (eg. Cuadrado



1969) are found (Cuadrado de Isasa 1970). The beginning of the use of this overland route is not known, but finds of 'Iberian' type painted pottery from the Guadiana area, eg. Moura and Campo Maior, suggest that it may have been in use from the 5th century, ie. corresponding with the development of the Southeastern 'Iberian' culture and its independent establishment of trade relations with the Atlantic zone, south of the Tagus.

Continuity of relations with the Alcácer area from the Southeast would explain the continued use and relative wealth of the ALCÁCER DO SAL graves of the 5th and 4th centuries. Schüle (1969a, Karte 20) illustrates the occurrence of a belt-hook with lateral openwork and one of his 'Western Andalusian' (ie. Cruz del Negro) type at ALCÁCER, the latter related to the 7th century contacts through the Phoenicians with Andalusia, and the former to the 'Iberian culture' (Taf.108, 3; Taf.95, 11).\*

The ALCÁCER DO SAL cemetery represents one of the contact points between Phoenician merchants and their fleets, established on the south coast, initially tapping and by the 7th century dominating the Atlantic trade network and re-orienting it to form part of an Atlantic/Mediterranean regional system. The coastal centres in direct contact with the Phoenicians would have attracted elements of population from the hinterland who would either have established and maintained regular communication with the coastal areas or would have founded their own centres near the coast in order to become involved in the coastal trade. In this context, the occurrence of gold objects, the composition of which corresponds with the majority of the Atlantic tradition goldwork, cf. BERZOCANA, BODONAL, ÉVORA, etc (as noted by Pingel 1975b), is not surprising. Nor is the introduction of Phoenician alloying techniques to goldworkers of the Northwest an isolated or inexplicable incident, as Pingel sees it.

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\* García y Bellido (1934) illustrates several belt hooks of this type from 'Iberian' contexts, and from OLYMPIA (Lám.V).

This situation is now better known from the Levantine coast. The sites of LOS SALADARES, Orihuela (Prov. Alicante) and VINARRAGELL, Burriana (Prov. Castellón) have large quantities of clearly datable 7th century Phoenician material. It can be suggested that these sites were established here in the late 8th century with the specific purpose of becoming involved in the bronze trade. In the 8th century this trade was extended from the Atlantic to the Mediterranean by Phoenician merchants 'tramping' along the Levantine coast before crossing to the Balearics and thence to their Sardinian and Central and Eastern Mediterranean destinations.

VINARRAGELL is a small 'tell' on the coastal plain to the north of Valencia, excavated and published by Mesado (1974).<sup>\*</sup> The lowest levels date to the end of the 7th century and the main occupation of the site is dated to the 6th and 5th centuries. Some characteristic Phoenician material, eg. amphorae, storage jars with 4 bifid handles, tripods, etc. are found there. Some of the amphorae are compared with those of ALMUÑÉCAR, CARAMBOLO and Río Tinto. The storage jars, some plain (as in Blázquez 1975, Addenda Figure 75), some painted (as in his Figure 76) with 2 or 4 handles, are possibly misleadingly compared with those of CARTHAGE Tanit I, and MOGADOR. They are also said to be very like those of TRAYAMAR, tomb 2 (which is not apparent from Niemeyer and Schubart 1975, Taf.15). The Levantine material which Blázquez then compares with obviously 'Iberian' wares need not be Phoenician products, nor, as he would have it, evidence that 'este tipo llegó hasta los Pirineos con el comercio fenicio' (p.377). There were probably many other sites, like VINARRAGELL, on the Levantine coast: indigenous centres established to become part of the Atlantic/Mediterranean trade system dominated by the Phoenicians, but this does not entail the situation Blázquez envisages in this area: 'La población, que se semitizó fuertemente, era de procedencia indoeuropea...' (1975, 375)

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\* I have not seen the publication of the excavation by Mesado and the evidence presented here is taken from Blázquez 1975, 375ff: his interpretations may not be those of the excavator.



LOS SALADARES is one of the most interesting sites excavated during the last few years. The settlement lies on a small hill near Orihuela. In addition to the ecological advantages of its location, ie. on the intersection of high and lowlands in the coastal zone, but above the Segura river floodplain, the site also dominated the natural route to the hinterland from the coast along the Segura: 'Sicher führten gerade diese Möglichkeiten zu kommerziellen Kontakten zwischen den Bewohnern der Siedlung und den Benützern dieser Handelsstrasse...' (Arteaga and Serna 1974, 108). A relatively large area has been excavated in 5 seasons and the reliability of both the excavation and its publication increase the value of the uninterrupted sequence of occupation from the L.B.A. to the 'Iberian' culture that has been recognised.

The L.B.A. occupation (Levels I-A 1-3) with the characteristic southern Iberian burnished wares also involved the use of a coarse ware with finger-impressed cordons, roughly shaped lugs, applied decoration and incised decoration; in the final phase of this horizon, Phoenician imports, in particular amphorae, occur (Arteaga and Serna 1975, Lám. I-XXII). This final L.B.A. phase can be dated to the beginning of the 7th century, by the t.a.q. given by the next occupation phase - the 'pre-Iberian' horizon. In this horizon, the pre-Phoenician contact hand-made wares are found at first (level I-B 1) but are soon replaced by locally produced hand-made imitations of Phoenician material which is now found in considerable quantity and includes the characteristic types known from the south, eg. from TOSCANOS, ie. polychrome ware (with broad painted zones), red slip and grey ware, and large numbers of amphorae (level I-B 2) (Arteaga and Serna 1975, Lám. XXI, 157, 158; XXII, 163-5; Lám. XX). Significantly, these Phoenician wares are accompanied by metal objects: a double-spiral fibula and a (?) pendant (Arteaga and Serna 1974, Abb. 3 c and e), belt-hooks (Arteaga and Serna 1975, Lám. XVII, 130-32) and an iron dagger with bronze sheet. 'Auf Grund der direkten Parallelen zu den Importfunden können wir diesen Kulturhorizont etwa zwischen 675/660 und 625/600 v. Chr. datieren.' (Arteaga and Serna 1974, 111).

In the 'Early Iberian horizon' (levels II-A to II-C) the imported polychrome ware is exclusively of the narrow-zoned variety: which is increasingly imitated by local potters, who abandon the 'polychrome' effect by the phase represented in level II-C, at the same time increasing their perfection of geometric decorative elements, which is another motif adopted from Phoenician prototypes. The excavators date this horizon to the end of the 7th century, or the 6th and early 5th. A 'developed Iberian' horizon (levels III-A and III-B 1-2) beginning in the mid 5th century is characterised by simple striped and concentric circle and semi-circle decorated pottery, ie. derived from the characteristic Pre and Early 'Iberian' wares, all ultimately of Phoenician derivation, but now increasingly accompanied by local imitations of Greek wares. A final date for the occupation of the site is given by Pre-Campanian ware found in level III-B 2; a surface find of Campanian A is known.

Although the excavators note the parallels for their Phoenician material in the southern sites, they believe that another - or even other - Phoenician establishment(s) will be located on the Levantine coast, possibly in the Segura estuary. Even if this proves to be correct, the establishment of LOS SALADARES in the late 8th century, and the probability of other late L.B.A. sites being founded in the coastal plain at the same time (cf. Arteaga and Serna 1974) must be seen in the context of Phoenician trade routes from the south coast, following part of the Levantine coast in order to take the shortest route to the Balearics. The use of this island route has been discussed above: it was an alternative to the North African route to the Central Mediterranean and was clearly preferred by the Western Phoenicians who had established their production centres and organised the extraction of the local resources in which they were interested in southern Iberia. They appear to have avoided the North African route: no Atlantic bronzes are known from North Africa.

The similarity in the location, date of use and certain contents of LOS SALADARES with SANTA OLAYA is striking: whereas the former probably was supplied by Phoenician traders with products from the southern centres, the latter may have functioned as a production centre for Phoenician collection as well as the point of distribution of Phoenician - or southern



Iberian - commodities obtained through the Phoenicians or their intermediaries. The function of LOS SALADARES in terms of the regional settlement pattern of the Orihuela area is not yet clear: it may have been a revictualising point for Phoenician traders, or may have been supplying materials or resources from the hinterland. Von den Driesch (in Arteaga and Serna 1975) comments on the surprising quantity of red-deer amongst the faunal remains of the site; it is as if the settlement were not an independent economic unit, but was dependent perhaps even for a supply of meat on the main L.B.A. settlement further inland from which it had been founded. Game therefore represents a supplement to these supplies. It is not certain whether relations with LOS SALADARES were deliberately established by Phoenicians in the way that contacts were established along the Atlantic coast, or whether the indigenous populations were the instigators of this connection. One thing is striking: only one sherd of a red slip plate was found on LOS SALADARES. This would suggest that high status objects which circulated in the south, and along the Atlantic, were not carried by Phoenician traders from Southern Spain bound for the Central Mediterranean. The red slip pottery represents a category of fine ware - like the bronzes - which were mainly intended for exchange with the local and hinterland populations of the south.

Maluquer (eg. 1969a) has tried to extend the area of Phoenician activity to the Catalan coast, but the known finds could well be the result of indirect relations with Phoenicians or Punic inhabitants of Ibiza. The 9 scarabs and discoid 'scaraboids' found together in a grave at CAN CANYÍS forming a necklace were, according to Pádro I Parcerisa (1971) deposited there early in the use of the cemetery (ie. 6th century) since they had not been distributed, but monopolised by one person. But neither their function nor their significance were understood in this context and they were obviously just 'beads'. These scarabs could have reached Catalonia from Ibiza (an established Punic centre in the 6th century, but not the 7th when it is said to have been founded). So too could the Naucratic faience vases (eg. Bosch Gimpera 1932a, Figure 262) and the Cypriot vessel (Figure 263) from the necropolis at AMPURIAS. They also could have reached Catalonia from the Greek centres established

in the late 7th century in the Gulf of Lions, ie. before the establishment of Marseilles and Ampurias at the turn of the century. By insisting on a 7th century date of foundation of Ibiza by Phoenicians (rather than Carthaginians), Maluquer envisages Ibiza as the 'punto de apoyo más firme para el comercio fenicio en las costas del Levante' (1969a, 247). There simply is no evidence for this.

The recent finds from Eastern Andalusia and the Levant coast are important in that relations between indigenous populations and Phoenicians are clearly recognisable for the 7th century. The origin of 'Iberian' style painted ware is seen to be in the Phoenician polychrome ware known to have been used in Phoenician production centres in the south and fairly widely distributed from them: the pre-Iberian painted ware is known from LOS SALADARES (Arteaga and Serna 1974, 1975) and LA COLINA DE LOS QUEMADOS (Blanco et al 1969; Luzón and Ruiz 1973). In general the term 'Iberian' is reserved to describe the later painted ware with concentric circles and wavy lines, as well known from the 5th century 'Iberian' culture of the Southeast (eg. Arribas 1963). The significance of the adoption of new pottery manufacturing techniques, ie. the use of the wheel and painted decoration in the 7th century, should therefore not be over-emphasised.

The difference between this initial 'orientalising' tendency (as Luzón and Ruiz (1973) would call it) and the totally altered structure of the 5th century, urbanised 'Iberian' society in the Southeast, with its own tradition of sculpture and religious architecture, writing etc - ie. all the accoutrements of 'civilisation' - should be emphasised. The Phoenician contribution to the later 'Iberian' civilisation should not be overestimated: technological changes, such as the use of bronze and possibly the manufacture of iron and bronze in the south, the adoption of certain techniques of pottery manufacture, did not lead to major changes in the overall structure of Early Iron Age society.

Relations with the Phoenicians would have brought about changes in the indigenous society in terms of economic and political organisation towards greater dependence on exchanges within a regional as well as an



international system that created the pre-conditions of the establishment of the more intense relations with the Greek cities of the west. The way in which a peripheral society takes on cultural attributes of the core- or semiperipheral areas of the regional system will be discussed in Part III, using the more detailed data available for the 6th century from Southwestern Germany. However, the degree of incorporation within the regional system varied. The Southeastern 'Iberian' culture took on many of the most distinctive features of the core states, ie. urban settlements, sanctuaries, bronze and stone art forms and figure-decorated pottery, and continued - or intensified - the process of 'orientalisation' as observed in the Southeast, eg. at POZO MORO, Chinchilla (Prov. Albacete) (Almagro Gorbea 1975), and also in the Southwest, eg. LA JOYA, Huelva, (especially graves 17 and 18) (Garrido 1973). (This is not true of Central Europe, where relations with the Etruscans and Greeks were controlled by intermediaries.) Thus, the relations with Western Greek city states involved the creation of a new economically specialised semiperiphery with all the concomitant structural features, similar to the processes of 'orientalisation' and 'civilisation' observed in Etruria in the late 8th and 7th centuries.

In the Southwest, the activities of the Phoenician traders had boosted the production and economic capacity of the indigenous populations; the rank of the elite members of society had been confirmed and reinforced by the introduction of new items of luxury and elite status, ie. ivories and alabaster, but the availability of Phoenician products was not controllable from any particular indigenous centre. In fact, the decline of the Phoenician foundations by the 6th century was followed by the establishment of a Punic sphere in the west that replaced the Phoenicians in the Atlantic network. Evidence for their presence in the south of Portugal as well as Central Portugal is known from glass beads, vessels and jewellery, which are also found in the northwest.

The considerable technical advances that were introduced by Phoenicians to local goldworkers, in terms of techniques of alloying (cf. Pingel 1975b) as well as manufacture, only extended the range of products and variety of techniques of the Atlantic goldworkers: their skills had been exercised

since the L.B.A. in the production of objects in the Atlantic tradition, and the context of their products, ie. Central and Northwestern Atlantic Iberia, is not very different in the Iron Age. As Pingel (1975b) has noted, the gold used for the manufacture of some objects found in TRAYAMAR, tomb 4, was of the type used by local L.B.A. goldworkers, and the Phoenician alloying techniques were adopted in the Northwest. Thus, another element of the Phoenician involvement in the Atlantic network is demonstrated by the type of gold used and the techniques in the manufacture of Phoenician style objects.

For the Phoenicians, Iberia and the Atlantic regional system were peripheral areas, they were tapped for their resources, encouraged to increase the exploitation of locally available resources, but no profound changes in the structure of indigenous societies was produced by the incorporation of Iberia into a Phoenician dominated Atlantic/Western Mediterranean trading system. The Phoenician 'commitment' to Iberia was in terms of obtaining resources: resources with which to maintain and reproduce the Western sphere in order to maintain and reproduce the Eastern trading system and continue to function as the suppliers of the Assyrian empire.

The decline of the Western sphere is usually seen in terms of the expansion of Carthage, but the expansion of Carthage was only possible when the Western sphere ceased to function independently. The reason for this lay partly in the Eastern cities, ie. the decline in the silver requirements of the Assyrian empire predicted by the beginning of hoarding - in the form of bullion - of silver ingots was probably one of the decisive factors in the abandonment of the Western sphere. Another was certainly the Greek expansion into the Western Mediterranean and the Levantine coast of Iberia, when independent and competitive access to the same resources was established in the 6th century. And a third factor was the increasing incorporation of Central Europe, north of the Alps, into the periphery of the Central Mediterranean Greek and Etruscan cities: in this way, independent access was established to many of the resources for which the Central Mediterranean centres had previously been dependent on Phoenician enterprise, and in particular, the Western Phoenician sphere, based in Iberia.



PART IIIA RE-ANALYSIS OF THE INTERNAL STRUCTURE OF IRON AGE SOCIETY IN  
SOUTHWESTERN GERMANY IN THE CONTEXT OF ITS EXTERNAL RELATIONS1 The Heuneburg complex and current interpretations: a brief summary

In Central Europe, the Early Iron Age is characterised by what are usually regarded as 'shifts' in the 'centres of cultural development'. Burials, which by their contents (and often the size of tumulus) (eg. Schiek 1956) are described as 'Fürsten' graves, represent the main evidence for the recognition of these centres. But, the emergence and decline of these centres in southwestern Germany during Hallstatt D can be related to the developments in the Central and Western Mediterranean, in particular to the expansion of Greek and Etruscan trade. Central Europe was increasingly drawn into the periphery of the Greek - and later Etruscan<sup>\*</sup> - core states in the Central Mediterranean. Whilst it is beyond the scope of this thesis to deal in detail with the establishment and the nature of the exchange relations with the Mediterranean core areas, and their intermediaries, it is proposed to deal here with the impact of these connections on the internal structure of the indigenous society in one of the peripheral areas, ie. Southwestern Germany.

The present tendency is to regard Iron Age cultural developments in Central Europe, north of the Alps, as essentially independent phenomena, related only in terms of 'trade' with the Mediterranean centres. The economic structure of Hallstatt D society is viewed in terms of a feudal model, in which a nobility appropriated and used resources and labour to obtain imports and elite consumables. Thus, relations between Southwestern Germany during Ha D 1 and the Mediterranean world have been viewed primarily in terms of interaction and exchange between autonomous units and not in terms of interdependence.

The most detailed evidence we have for Ha D 1 comes from the Upper Danube valley between Riedlingen and Sigmaringen: in particular from the fortified settlement of the HEUNEURG, the open settlement of TALHAU, and

\* The Etruscan centres and their evolution have not been dealt with here; nor have the Po valley centres & the Veneti.

the burials in the HOHMICHELE, TALHAU, and other tumuli (Gem. Heiligkreuztal, Kr. Saulgau). (See *Figure 27* for the exact location of these and other sites which will be referred to below.) This complex of settlements and burials will be briefly summarised here:

Following the work of Goessler and Veeck in the 1920s (Goessler 1911 and 1923; Veeck and Goessler 1927) more recent excavations have concentrated on the fortifications and settlement deposits of the southeastern corner of the interior. The series of excavations begun in 1950 have been published by Bittel and Rieth (1951), Dehn, Sangmeister and Kimmig (1954), Schiek (1959), Kimmig and Gersbach (1966 and 1971), Kimmig (1968 and 1971), Gersbach (1973 and 1974). Major publications of the finds (mainly from one or two seasons' excavations) are appearing, eg. Mansfeld (1973) (a study of 97 fibulae) and Lang (1974) (292 sherds of ribbed wheel-made pottery, 85% of which were unstratified).

After a period of occupation during the Middle and Late Bronze Age (Gersbach 1973), the major occupation is of Hallstatt date: according to Kimmig (1975) the 'dozen or so walls of the Hallstatt citadel are [associated with] over twice as many habitation levels'. The Ha D 1 settlement evidence is known from level IV which, from the schematic stratigraphy of the southeastern corner published by Kimmig and Gersbach (1971), is seen to be quite complex, in particular in its relation to the fortification. The use of limestone blocks and mud-bricks for the construction of the level IV fortification, and the parallels for this 'völlig unmitteleuropäisch' construction in the Central and Eastern Mediterranean has been the subject of many publications (eg. Dehn 1952, 329; Dehn 1957; Kimmig and Gersbach 1971). Dehn (1957) considered the dimensions of the Heuneburg mud-bricks to correspond most closely with those of Apollonia (Albania). Its rectangular bastions, abrupt corners etc are characteristic elements of Greek defensive constructions (Dehn 1958). Dehn also cites the use of mud-brick in domestic architecture in southern France during the period of Greek colonisation of the Western Mediterranean at LE PÈGUE, Nyons (Drôme) (1974).



The most interesting findings from the recent excavations are the evidence for industrial activities in the various phases of occupation as recognised in level IV. From level IV c (the earliest Ha D 1 occupation phase), level IV b 3, level IV b 2, IV b 1, IV a 2 and IV a 1, there is evidence in the southeastern corner for groupings of houses - in different combinations and orientation - but usually associated with evidence for bronzeworking (ie. molten drops of bronze, pieces of drawn bronze, crucible fragments etc) as well as hearths, or ovens, showing signs of intensive burning. Kimmig and Gersbach interpret most of the structures located in this area as the workshops and dwellings of craftsmen. Level IV b 3, in particular, is interpreted by them as an indication of the '... wirtschaftliche Blüte ... die wohl nicht zuletzt auf dem Handel mit dem Süden basierte...' (1971). The layout of the southeastern corner was somewhat altered in level IV a 2 when a vast 'granary' was constructed, and a 'bastion', or tower, was added to the southern wall: both structures are thought to be the response to a particular situation of stress. During period IV a 1, the entrance to the settlement in the eastern wall was filled in using what is considered to be inferior building material (Kimmig and Gersbach 1971, 72-3, Taf.12); but the granary was rebuilt in the same place and bronzeworking still took place in certain buildings. The structures of level II (Ha D 2) and III (Early La Tène - Ha D 3) are less well known and the nature of the activities within the settlement have not been given much attention (Kimmig and Gersbach 1966). Unfortunately, no precise definition of 'workshop', as opposed to dwelling, is applied to the structures of level IV (with which we are concerned here) and we are left in considerable doubt as to the function of individual structures, as well as the layout of the successive settlements, during Ha D 1.

If one considers the size of the area excavated (as shown in Kimmig 1975, Figure 15), and relates it to the interpretations by Kimmig and Gersbach in terms of 'independent' economic units or 'workshop quarters' (which Kimmig (1975, 51) compares with 'bazaars (souks) of Oriental cities'), then it has to be admitted that on the basis of information on a mere 5-10%, no real understanding of the nature of the organisation of the settlement will be achieved unless a model of the total social as well as economic structure of the society is rigorously applied. By ..

alternatively imposing a model of a classical Greek city and an Oriental market-place on the evidence of successive occupations of the HEUNEBURG, Kimmig clearly has no overall view of the spatial organisation of the society he is dealing with, which he still believes to be 'feudal' (1975).

The nature of the evidence for industrial activities in the HEUNEBURG will be discussed below. The material from the settlement has received surprisingly little attention, particularly in the case of the southern imports, considering that the very existence of the HEUNEBURG is often attributed to contacts with the south by Dehn, Gersbach, Kimmig and others.

Lang (1974) states that the earliest dated find on an Attic Black Figure sherd is on a house-floor of IV a 1; viz. at the very end of the period of use of the mud-brick wall. This sherd (M 181) is also mentioned by Kimmig and Gersbach (1971, 41) as one of the only two sherds of Greek vessels found stratified: the other (S 108), was in rubble in level III b. The 31 small sherds of Greek kraters, amphorae and drinking vessels are dated to 525-475 BC, eg. figured volute krater sherd, c.500 BC illustrated by Kimmig (1975, Plate VIII c). They are of Attic or Greater Greek origin. Most are found in post-mud-brick wall levels, viz. in level III - the period dated to Hallstatt D2.\* The different varieties of amphorae began to appear in III, most are found in II and I. These amphorae are of the Massaliote type (viz. rounded body, 2 handles from neck to shoulder) (cf. Kimmig 1968, Abb.45 and Kimmig 1975, Plate VII Ia). Gersbach (personal communication) mentioned long-bodied amphorae and expressed doubt as to a Massaliote origin for any found on the Heuneburg since the wares are not micaceous. He suggested an unspecified 'Greek' origin for them.

Central Italian wares are said by Lang (1974) to be the prototypes of Hallstatt D 1 wares; no bucchero imports are published. Kimmig (1975, 49) mentions an exceptional fragment of a 'black-and-red banded urn' of Este type.

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\* According to Gersbach (personal communication), of c.60 pieces of Greek wares, all figured wares are Attic Black Figure, but there are also many sherds with plain broad black stripes.



The so-called 'Ionian' wares manufactured in Southern France at this time also reached the Heuneburg (Gersbäch, personal communication). Kimmig (1975, 49) acknowledges their influence on painted pottery manufactured at the Heuneburg. He also cites certain wares produced in 'northern Iberia' as influential in a 'series of painted sherds bearing concentric semicircles as a decorative pattern'.\*

Thus, wine amphorae and associated fine Greek wares reached the Heuneburg, especially in periods III, II and I. Kimmig (in Dehn et al 1954) maintained that the painted pottery characteristic of Period IV was also largely confined to it. The richly decorated vessels showed the use of colours, techniques and motifs not found in the preceding pottery of Urnfield tradition. The new techniques, eg. the use of black/brown and red patterns on a white background, were thought to be based on southern prototypes, viz. Greek and Central Italian. Funnel necked vessels with red or red-brown decoration on a white background were dominant among the finds. The manufacture of plain wares was indicated by 'Fehlbrände grober Gebrauchskeramik'; the range of which was illustrated by the finds from one of the towers. An unusual funnel-necked footed vessel from BURRENHOF (Nürtingen) was compared with a corresponding sherd from the Heuneburg: it was decorated with semi-circles between horizontal and vertical lines.

Lang (1974) has studied the introduction of throwing techniques, as seen on ribbed wares, at the Heuneburg. It was a gradual process: some pottery was clearly made by a combination of building and throwing techniques. The basic repertoire of thrown forms - bowls, dishes and jars - appear in period III a 1 (viz. at the beginning of Hallstatt D2) but are clearly developments of types found in period IIIb and IV. Thus, she concludes that the manufacture of pottery on a fast wheel was not 'imported' with the pottery from Central Italy, via the Golasecca culture, nor from Southern France. Instead, techniques were experimented with on local types of fine and coarse wares based on Central Italian, Greek or Southern French prototypes in Hallstatt D 1.

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\* Why this should be an 'Iberian feature' is not clear.

Amber found on the HEUNEBURG was shown on analysis to be Baltic, not Mediterranean (Kimmig and Gersbach 1971, 56) and was possibly obtained via the Eastern Hallstatt area.

A coral branch found in a late period IV level (Hallstatt D 1) could have reached the HEUNEBURG via the Rhône-Saone or the Alpine route (Kimmig and Gersbach 1971, 57).

Bones of chickens are said to have been found on the site (Kimmig 1968, 92) and bones of mules and donkeys are considered as evidence for the method of transporting goods from the south (Kimmig 1968, 93).

On the open settlement at the foot of the HEUNEBURG, known as the TALHAU, there are said to have been 7 phases of settlement, of which very little has been published (mainly Schiek 1959 and Gersbach 1969). In fact, only 2 phases of settlement have been identified by Gersbach. The first settlement is compared, in terms of the construction techniques and material with period IV c of the HEUNEBURG (Kimmig and Gersbach 1966), but due to the use of mud-bricks in the hearth of the main building they consider it to be of later date than IV c. The second settlement is dated to the transition from Ha D 1 to D 2, contemporary with the end of HEUNEBURG IV, the beginning of III (Schiek 1959).

Related to the main building of the first settlement were a series of pits and ditches. The contents of the ditch included fragments of lost-wax moulds for armrings as well as pieces of moulds for armbands. According to Schiek (1959), the 100 loom weights found in a burnt patch by Paulus during his excavation of the TALHAU I tumulus were from the settlement; he claims similar burnt patches from beneath TALHAU II and III. Gersbach claims that iron was worked in the settlement (personal communication).\*

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\* I should like to thank Dr. Gersbach for discussing the material from the HEUNEBURG and TALHAU with me in Tübingen, 1975.



The burials of Hallstatt D1 (Heuneburg period IV) will be briefly described and represented on a scalogram, *Figure 25*. The excavation of the c.15 metre high HOHMICHELE tumulus 1937/8 was limited to the central area and the upper part of the southeastern segment of the tumulus. The 13 burials were published by Riek and Hundt (1962); full details of the contents and their context can be found there.

Grave I, which was almost central to the tumulus, was robbed in antiquity. Careful excavation revealed the remains of a wagon and many grave goods in a wooden chamber, c.5.7 x 3.5 x 1m (Riek and Hundt 1962, 44-54). The excavators suggest that the tomb was robbed during a building phase of the tumulus (pp.42-3). Some glass beads, like those found in the chamber, and part of a glass pendant were found in the robbers' trench. There appeared to have been a lot of cloth in the chamber, lining the walls and probably the floor - in some cases, fragments were found on hides. A loosely woven strip - possibly a belt - had thin gold strip woven through it and decorating its fringes. In the northeastern corner of the chamber, remains of cloth and cow-hide and human hair were found, indicating an inhumation in this area. More puzzling remains of human, cow and horse hair (but no skins) were found south of the wagon. c.400 glass beads and part of a glass pendant were found together with 1 amber bead. The wagon remains consisted of a bronze sheet covered ~~hmb~~ and pieces of iron sheet, possibly from the wagon body. There was no evidence for spoke-covering. A bronze ring with rectangular section was probably part of the fittings. A quartz boulder was found in the chamber. A number of finds from outside the chamber included remains of a wagon wheel, a bronze belt, a terret, 193 glass beads, 2 amber beads and a miniature pot. Small piles of human hair and a plait, and piles of hazelnuts and fruit stones (possibly plums) were found there too.

At 0.65 m above the ground level, 4 inhumation burials were found in a small group - these are Graves II to V. They were buried in wooden coffins covered by stone packings. The bodies are thought to have been buried facing towards Grave I: this is based on minimal evidence, viz. minute fragments of teeth found in the graves (Riek and Hundt 1962, 54-61, Abb.13). A number of flat limestone slabs, also within the build-up of

Figure 25

## THE HOCHMICHELE GRAVE CONTENTS

GRAVE/Rite*	wagon	horsetrappings	bronze vessels	glass	coral	bronze pendant	gold	amber	cloth (other than clothing)	iron weapon	bronze belt plaque	bronze fibula	bronze ring	bronze pin	pottery
VI /inh	x	x	x	x	x	x		x	x	x	x	x			
I /inh	x	x		x			x	x	x		x		x		x
VIII /inh										x	x	x			
XI /cre							x					x			x
XII /cre								x					x		
VII /inh											x		x	x	
IX /cre									?				x		x
II /inh												?	?		x
XIII /cre												x	x		
X /cre													x		x
III /inh												?			
IV /inh															x
V /inh															x

\*inhumation/cremation



the mound, are thought to be part of a path south of the graves. Nearby, excavation revealed stony areas and charcoal patches with burnt bone. Only one piece could be identified and it was wild boar. The excavators suggest that these were the remains of burnt sacrificial offerings. Urnfield pottery is found in the build-up over the graves.

The conditions of burial were particularly unfavourable in Grave II. In the coffin covered by limestone slabs only traces of disintegrated bronze objects were found in the chest and lower arm regions: these may have been a fibula and an armring. For purposes of analysis these have been listed as '?' in the scalogram. The traces of iron near the knee have not been included as Riek and Hundt (1962, 57) think it unlikely to be a spearhead. Spearheads are usually found at shoulder height in Hallstatt graves. Characteristic Alb-Salem sherds complete the surviving grave goods (polychrome fragments, a funnel-necked vessel sherd, etc.)

The small size of Grave III leads Riek and Hundt (1962, 58) to believe that this is a child's grave. A bronze object had disintegrated in the chest region. Hazel nuts and oak leaves left their impressions in the soil.

Grave IV was a simpler tomb construction; 40 sherds were found in it, but no traces of any metal objects (Riek and Hundt 1962, 58-9).

Grave V was larger than the others and had a larger stone packing. Sherds of Kegelhaals vessels were the only finds; some other sherds had crumbled.

Grave VI was another wooden chamber tomb, c.10 m south-east of Grave I, but 2.15 m above the base of the tumulus. The chamber was c.2.45 x 3.0 x 1.06m. The floor of the chamber had been covered with cow hides before the bodies of a man and a woman were placed in the chamber. The position of grave goods and the few fragments of teeth indicate their heads were in the southeast. Once they had been placed in the chamber, a 4-wheeled wagon was put in. Its iron tyres were fairly well preserved and hub fragments - with bronze sheet covering -

were found (see Riek and Hundt 1962, 61-9, Taf.3-5, 7-8, 10-11, Beilage 3). Two bronze cylindrical pieces with flat tops - of unknown function - are assumed to have been part of the wagon fittings. 8 bronze pole ends with iron rings are taken to be part of the wagon fittings too. Bronze horse trappings were found in the northeastern corner of the chamber: terrets (Buckelscheiben) and strap crossings (Riemenverteiler) and bronze strips for reins were found in groups on the floor of the chamber. 2 iron bits were found. Near one of the wheels, a boulder, like that in Grave I, was lying.

The man had worn 2 snake fibulae, a plain bronze belt and an iron neckring. Beside him lay an iron slashing knife and a small leather bag, studded with bronze rivets, containing 51 iron arrowheads; nearby lay a piece of a whet-stone. The woman had a fine bronze snake fibula and several rows of glass and amber beads. Remains of clothing of both bodies were found. A decomposed thread had been embroidered into the cloth found on the man's legs: analysis has shown this to be true silk (Hundt 1969). Cloth was also found adhering to the iron wagon fragments - indicating the presence of large quantities of cloth in addition to clothing in the tomb.

A beaten bronze bowl with iron ring-handles lay between the wheels of the wagon. Inside it a small bronze vessel had been placed. Between the other wheels, there was a flat bronze bowl with a beaded rim (Dehn 1971, Taf.8). A shallow basket was preserved nearby. Near the flat bronze bowl, 3 bronze mounted boar tusks (and pieces of a fourth) and a pair of incisors bound in bronze strips had been placed. With them there was a piece of coral, a perforated piece of iron ore and a broken glass paste bead, and a cylindrical bronze pendant.

Grave VII was located at a height of 2.5m in the mound (Riek and Hundt 1962, 69-70, Taf.12). A small bronze sheet ring and a hollow headed pin were positioned near the head. Flat open-ended bronze arm-rings were found in the region of the arms, and a bronze sheet belt plaque - with cloth fragments adhering to it - was in the waist region. (The positions are assumed - only fragmentary skeletal remains were found.)



In Grave VIII (at 3.83m height in the build-up) 2 iron-socketed spearheads were found in the shoulder region, the shoe of one spear was located - indicating a spear length of 1.7m. 2 bronze snake fibulae lay in the chest region. Adhering to a ribbed bronze belt plaque were fragments of lamb's wool.

Graves IX - XIII are all cremations. The cremated remains are found in situ, ie. where burnt, although the larger bone fragments were always gathered together in a small pile.

Grave IX, at 4.35m height, was partly superimposed (c.1m above) on Grave VI. It consisted of an especially large and intensively burnt clay-lined area, on which the burnt bones and goods were laid and on which masses of charcoal were found. The goods consisted of a set of Alb-Salem pottery, c.30 vessels, a roll of burnt cloth, and 2 bronze armrings with engraved line decoration (Riek and Hundt 1962, 71-5, Taf.15-17).

In Grave X (Riek and Hundt 1962, 75-6) the cremated remains were marked by boulders, near which an antler hammer, a bronze armring - between two layers of bark - and 28 sherds of plain pottery were found.

In Grave XI (Riek and Hundt 1962, 76-7, Taf.19, 20) (at 6.8m height) a snake fibula had been all but destroyed by fire. Near the cremated remains 2 golden 'Kahn' earrings were found. Remains of Alb-Salem pottery included a stepped plate, a Hochhals vessel, 2 simple bowls and a bowl with a handle.

Near the cremated remains found in Grave XII (at 9.7m height) an amber bead and 4 bronze rings were probably deposited in pieces of bark. 2 piles of acorns lay nearby (Riek and Hundt 1962, 77-9, Taf.21).

In Grave XIII (at 11.1m height), beside the piled up bone fragments, 2 bronze armrings and a pair of snake fibulae were found. 2 other armrings, 1 with wavy line decoration - were lying nearby; there were also traces of disintegrated bronze objects and some animal bones.

The other large tumuli in the HOHMICHELE group, ravaged in the 19th century, provide us with mere clues to their original contents:

In the KLEINE HOHMICHELE, Gem. Heiligkreuztal, bronze, iron, wooden and pottery finds are reported (Goessler 1923; Kimmig 1968). In another, (d), immediately southwest of the HOHMICHELE, excavated by Pfitzenmayer, finds included snake and bow fibulae, bronze rings, a blue bead and boars tusks in bronze mountings, as well as pottery. Another tumulus, (g), was investigated by Paulus in 1880. A wooden chamber was reported at 1.5m depth (in a tumulus 4m high) in which wagon remains, including iron sheet, bronze tubes and plaques etc were found (Goessler 1923).

From the LEHENBÜHL, Gem. Hundersingen, a snake fibula, bronze 'button-like' objects and an iron blade fragment are known from a small wooden chamber, 2 x 2m: this could be a secondary burial. It is thought to have been robbed in antiquity (Schiek 1956, 42; Kimmig 1968).

Gersbach put forward a tentative interpretation of the HEUNEBURG building and destruction sequence (1969). He suggested that the relationship between the HEUNEBURG and the burials in the Heiligkreuztal and Talhau tumuli could be interpreted in terms of successive 'dynasties' resident at the Heuneburg:

In his most recent publication on period IV (Gersbach 1974), he defines the period as follows:

'Die Periode IV umspannt den Zeitraum von der Gründung der Burg als Sitz eines lokalen Adelsgeschlechtes bis zum mutmasslichen Untergang dieser Dynastie als Folge einer gewaltsamen Zerstörung der von einer Lehmziehlmauer umgürteten Burg.'

(p.189)

Thus, period IV is no longer defined in terms of stratigraphic or archaeological units: it represents the time period between two events: the foundation of the site as the residence of a local aristocratic line and the fall from power of this dynasty as a result of the destruction of the fortified site. The finds are only used to date the period to Hallstatt D1.



The entrance in the eastern wall during period IV is considered to be of special importance in the history of the site. It is situated c.35m from the southeastern corner, just where a natural gully is found in the slope. It may have led to a convenient place for fording the river. Gersbach (1974, 196) believes that this would have been one of or in fact the 'ausserordentlich verkehrsgünstig gelegenen Haupteingang zur Burg'. According to Kimmig and Gersbach (1971, 71) it afforded immediate connection with the main trade routes and this emphasised the 'verkehrsgünstige Lage der Dynastenburg'.

During IV a 1 this entrance was filled in. The 'ungewöhnliche primitive Bauweise' of this construction has led Gersbach to propose that 'die Vermauerung des donauseitigen Tores in aller Eile unter dem Druck unmittelbar bevorstehender kriegerischer Auseinandersetzungen erfolgt ist' (Gersbach 1974, 196). Not only was the Heuneburg settlement reduced to ashes, but these 'Kampfhandlungen' were also reflected in the burning down of the Talhau open settlement (see also Kimmig and Gersbach 1971, 75).

Recently, Spindler has attempted to redefine the chronological relationship between the HEUNEBURG, HOHMICHELE and TALHAU sites by relating the contents of the Hohmichele graves to the habitation debris from the two settlements (Spindler 1975).

He bases his chronological reasoning on Zürn's studies of Alb-Salem (now called Alb-Hegau) pottery (Zürn 1943 and 1957) and on the view that the incised decorated wares continued to be used later in Hallstatt D 1 than the excised and stamp decorated wares. Thus, the large amount of excised and stamp decorated pottery found in the secondary burials of the Hohmichele - especially in Grave XI, which is stratified above Grave VI - and the virtual absence of this pottery on the Heuneburg (with the exception of 3 sherds) is seen by Spindler to be convincing evidence that the Hohmichele was constructed before the IV c settlement on the Heuneburg, ie. the earliest D 1 settlement. Since the proportion of incised decorated Alb-Hegau ware found on the Talhau open settlement (associated with the mud-brick hearth) is greater than that in IV c, he

suggests that the Talhau predated the fortified settlement of IV c on the Heuneburg. But Spindler is anxious to maintain the correlation of the Talhau '1st settlement' with Heuneburg IV b (since both involve the use of mud-bricks). It has, however, already been suggested that the use of mud-bricks in the hearth on the Talhau may well precede the large-scale use of mud-bricks in the fortification of the Heuneburg. Spindler mentions 3 unpublished settlement phases prior to the '1st settlement' which may still be contemporary with or earlier than IV c, although later than Hohmichele VI, IX and XI.

His main conclusion is that the 'Founder of the Heuneburg' could not possibly be buried in the Hohmichele. His 'residence' must therefore be looked for elsewhere; it will be recognised, he believes, by the presence of Alb-Hegau excised and stamp-decorated pottery.

The basis for Spindler's argument is very insecure. He maintains that the excised and stamp decorated sherds found in the build-up of the tumulus could either be from an earlier settlement or represent vessels 'lost during the construction of the tumulus'. He prefers the second explanation (although he admits that the Urnfield material found in the tumulus had been redeposited there), the Hohmichele is said to have been established on sterile ground (Schiek 1959). Neither the absence of settlement remains at the base of the Hohmichele, nor the difference in the inclusion of Urnfield and Alb-Hegau material within the build-up has been established with any conviction.

Finally, the special nature of funerary sets of pots, as opposed to domestic utensils, is not sufficiently emphasised; in fact it is denied by Spindler. As will be elaborated below, the emergence of 'Hallstatt D 1' in the Heuneburg area represents the appearance and distribution of certain material within what can only be described as a 'Hallstatt C' material environment. It thus appears as a spatial phenomenon, which can be attributed chronological significance. The continuity from Hallstatt C to D 1 must be acknowledged and is likely to be recognised archaeologically even in the centre of new developments, such as the Heuneburg. Continuity in burial rites, eg. the inclusion of a set of



pots as is frequently found in Hallstatt C, could be an indication of the maintenance of links with past generations or with the inhabitants of what could still be described as 'Hallstatt C' areas.

A general criticism that can be made of current interpretations of the Ha D material in Southwestern Germany is that the evidence of the Fürsten burials is usually considered alone or in conjunction with a few - often only one - aspect of the settlement and, as in the case of Gersbach (1974), the evidence available from the area beyond the immediate HEUNEBURG vicinity is largely ignored. Here, Driehaus (n.d.) is a notable exception.\*

The most important current interpretations of the Ha D evidence of Southwestern Germany will be briefly summarised and their contribution towards explaining the nature of Early Iron Age society, and the archaeological evidence for it, will be evaluated.

Kimmig, the most influential of all Heuneburg authorities, has adopted and elaborated the concept of Fürsten in many publications; but, his most explicit statement on the concepts used in interpreting the Fürsten phenomenon is found in 'Zum Problem späthallstattischer Adelssitze' (Kimmig 1969). Here he attempts to use the tumuli to define their residences (Kimmig 1969, 102). The term Adelssitz, Fürstensitz and Herrensitz are alternative designations for these settlements which are curiously defined by the proximity of Fürsten graves; the presence of southern imports; and the layout of the settlement to include an acropolis and suburbium. He regards them as functionally indistinct from mediaeval Burgs:

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\* I am very grateful to Dr. Driehaus for allowing me to consult a copy of his study that was available in Tübingen in February 1975. It was not dated, and page references given here will not parry with any later publication. I hope that from my brief consultation of his important study I am representing his views fairly.

'Wissen wir doch, dass in prähistorischer wie in frühmittelalterlicher Zeit bis etwa gegen 1100 n. Chr. der Adlige grundsätzlich mit seiner Klientel und seinen Untergegebenen zusammen wohnt...'

(1969, 92)

and the above criteria for their definition are required to distinguish the Adelssitz from the 'ordinary' fortified village.

The concentration of Fürsten graves (ie. graves rich in gold and southern imports (eg. 1969, 107)) around the Heuneburg, is contrasted with the greater distances between Fürsten graves and 'probable' Fürstensitze in the Upper Rhine, ie. BREISACH, and Upper Saone, ie. GRAY. In the case of the Heuneburg and the Hohenasperg, the large number of Fürsten graves assumed to be contained in the large tumuli surrounding the settlements are certain evidence - for Kimmig - of the existence of a dynasty controlling the HEUNEBURG (or HOHENASPERG) for a long time (1969, 102). The wider distribution of Fürsten graves would indicate the extent of the 'Herrschaftsbereich' within which the Fürsten were buried. Thus, he compares the political situation in Late Hallstatt to that of the 17th and 18th centuries AD with its many small 'Fürstentümer' (1969, 108; 1975).

Kimmig regards the late Hallstatt Fürsten as intrusive - probably Celtic - and made up of 'individuals' who 'established their sites of residence and styles of life in ways contrasting markedly with those of other settlements of the time' (1975).

The long-distance trade which provided the Fürsten with southern imports is discussed in Kimmig and Rest (1954). Trade via the Rhône-Saone would have brought the 'Ionian' and Attic wares, the amphorae and the bronze vessels found northwest of the Alps. Some Etruscan techniques and motifs were probably transmitted along routes through the Alpine passes. The commodities involved are difficult to ascertain: they suggest that slaves were given in exchange for southern luxuries and consider the possibility of the Fürsten being involved in the amber trade.



The mud-brick wall of Heuneburg period IV is regarded as the work of 'Celtic architects' (Kimmig 1975, 44; Kimmig and Gersbach 1971, 90) having adopted techniques observed in the south: the Marseille region is mentioned as a possible source of instruction.

The notion of the Fürstensitz as a combination of an acropolis and suburbium (1975) is part of Kimmig's attempt to relate the 'ausgeprägte Feudalstruktur im späten Hallstattraum' (1969, 98) with the emergence of city-states in the Eastern Mediterranean. He suggests that the physical aspect of the 'polis' - rather than the socio-political aspects - influenced the settlement plans of the late Hallstatt peoples north of the Alps (1969, 97).

Thus the original model of (a) an indigenous feudal society in contact with and therefore influenced by the Mediterranean world is distorted by (b) the attempt to impose a model of conquest and domination - thus separating the Fürsten graves from their local context and (c) attributing the Fürsten with aspirations to a 'civilised', ie. urban, way of life.

The combination of elements of political, social, economic and even spatial organisation of societies as distinct as those he selects from could not possibly be expected to adequately describe, let alone explain, the late Hallstatt society he is dealing with.

Firstly, the appropriateness of the comparisons with feudal society must be considered.

Underlying the use of the feudal model is a belief in a cyclical course of historical development. Thus, early mediaeval society is regarded as a reversion to a pre-Roman situation. The effects of the emergence and expansion of Rome are minimised and the dominance of a specifically European social form is assumed.

There is, of course, considerable value in relating post-Roman society to its pre-Roman counterpart, but if the relationship between Early Iron Age and Early Mediaeval societies is to be tested, then the

general situation must not be assumed to be the same. By the Late Iron Age (mainly La Tène C), certain developments had taken place in Central Europe which had clearly altered the structure of European society as it had been in the Early Iron Age. During the Late Iron Age the existence of far-reaching trading networks within Central Europe (and beyond it), the establishment of large-scale manufacturing centres - often within walled urban settlements - and the minting of coins are known. Thus, this was a society of essentially different economic and political structure from the Hallstatt D society Kimmig is trying to elucidate. When Early Mediaeval society is compared with a pre-Roman counterpart, it is to the Late Iron Age that one should refer.

Further confusion is caused by the frequent misuse of the term 'feudalism' which detracts from its real meaning, viz. a hierarchical social system based on rights to land. Whether or not it is a general stage of cultural evolution is much debated and is not directly relevant here. Many aspects of European feudalism can be found in other societies, eg. the exploitation of a peasant class by a ruling class, or the existence of a warrior caste dependent on their lords for rights to land. But, the distinctive character of European feudalism cannot be used to define a general form of political/economic organisation.\*

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\* Feudalism in Western Europe represents a response to a particular set of economic and political conditions. Following the collapse of the Roman Empire in the west, trade with the Eastern Mediterranean area was soon checked by the dwindling resources of precious metals in Western Europe. Furthermore, as a result of the Islamic conquest of large parts of the Near East, North Africa and the Iberian peninsula, Muslims came to control trade in the Mediterranean. Pirenne (quoted by Slicher van Bath) saw this as the decisive point at which the Mediterranean economic system and its long-distance trade networks was disrupted and in Western Europe this brought about the change-over from a money economy to a natural economy (subsistence oriented). This turning point is now thought to have occurred later, as indicated by the end of minting gold at the end of the Carolingian era (eg. Slicher van Bath 1966, 31), when the supplies of precious metals were depleted by trade with Byzantium or looted by Magyar and Saracen invaders.



One of the main arguments against the appropriateness of the feudal model for late Hallstatt society is the basic premise of feudalism that land is the real basis of wealth. But, if we look at the situation in the Early Middle Ages, we find that population estimates for Western Europe are extremely low: in Germany the density per square kilometre is estimated at 2.2, when only c.3.5 - 4.0% of the land was under arable (Duby 1974, 13). The exceptionally low population density at this time is thought to have been due to climatic change, disease and poor technology. Whatever its causes, however, under these conditions land was not the source of wealth: manpower was.

It is partly due to the generally assumed low population density for Early Iron Age Europe that control over population rather than land is considered to be appropriate to the Late Hallstatt period in southwestern Germany. This will be elaborated below.

Kimmig's suggestion that the Fürsten graves represent an intrusive, dominant group of individuals is difficult to reconcile with the archaeological evidence. As will be shown below, the difference between the Fürsten and other graves, either in the same or different tumuli, is usually quantitative. Thus, the inclusion in the Fürsten graves of certain jewellery and weapon types is matched in contents of many non-Fürsten graves. Even the southern imports and gold objects (the basis of Kimmig's definition) are found in smaller quantities in graves which are not graves of Fürsten.

In the case of settlements, there is marked continuity in basic domestic equipment, viz. pottery, and building techniques. In fact, the dominance of Alb-Hegau tradition pottery in early Hallstatt D - in both settlements and burials - is stressed by Zurn (1953) and others. There is no evidence for a distinctive set of materials and practices which could be said to distinguish certain inhabitants of the Fürstens' settlements in life or death from the beginning of Hallstatt D. The material benefits of their contacts with the south are recognised in their graves and settlements but cannot be said to be limited to certain 'individuals'.

With regard to the 'urban' aspirations of the Fürsten, Kimmig is attempting to impose one aspect of the city-state, which is neither characteristic nor standard, to a tribal society of different economic and political organisation. By insisting on the adoption of urban living by the Hallstatt D Fürsten through imitation of observed settlement organisation in the Mediterranean he is negating the cohesion of their own social organisation. Since settlement organisation is not an independent variable of a social system, it cannot be deliberately manipulated by members of the society while ignoring all other aspects of the organisation of the society.

As yet, no conclusive evidence for urbanisation is available from Hallstatt D. The settlement evidence from the Heuneburg - as published - is for craft activities carried out in buildings which may or may not be workshops and are usually associated with habitation structures (as far as we can tell from the undetailed accounts of their contents or features). The extent of the occupation debris belonging to any particular phase is not yet known. The enclosure of the entire plateau area of the Heuneburg may be an indication of fortification methods, eg. to include a large area without buildings, rather than the extent of the habitation area.

Dehn regards the Fürsten graves as evidence for the emergence of an elite social class with sufficient wealth to become involved in long distance trade with the Mediterranean world (eg. Dehn and Frey 1962).<sup>\*</sup> The mud-brick wall of Heuneburg IV is an obvious example of this contact. Dehn (1958) suggested that the 'Bauherr' of the Heuneburg had attempted to copy the Greek fortifications, either with Greek workers - or a Greek foreman - or with workers who had been trained by Greeks. He cites the presence of the painted 'Ionian' wares and the use of mud-bricks in domestic architecture at LE PEGUE (near Nyons, Drôme) as confirmation of the role of the Rhône-Saone route (1974).

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<sup>\*</sup> This is a popular explanation of the appearance of Fürstengräber, eg. Schiek (1956, 207).



The multiplicity of routes used and items conveyed is discussed by Dehn (eg. Dehn 1965) with reference to the bossed-rim bronze bowls. The Etruscan prototypes are known and the bowls he discusses may be imports or locally made imitations. Dehn stresses the importance of these bronze bowls - and their distribution - as indicators of the probable use of Eastern and Western Alpine passes from early in Hallstatt D 1.

An interpretation of these southern connections is elaborated in Dehn (1972). On the basis of two totally unrelated comparisons, Dehn (1972) proposes a novel explanation of interaction between Late Hallstatt Fürsten and the hinterland of Marseilles. He notes that there are reports from the Middle Ages until the beginning of this century of transhumance from the area Northwest of the Alps - in particular the Swabian Alb - to Burgundy and sometimes further south. The severe winters made southward migration with herds of sheep advisable. In applying this activity to Late Hallstatt populations, Dehn specifies the rank of the shepherd accompanying the herds. Drawing on biblical and Homeric references, he envisages members of the 'ruling class of northern Barbarians' - 'fürstliche Hirten' - in direct contact with Greek colonists in southern France. This, he maintains, would explain the occurrence of exceptional southern objects (eg. the Vix krater, the ivory found in the Grafenbühl), and the opportunity for the Fürsten to learn about southern architecture.

Dehn has presented convincing evidence for the recognition of diverse routes of contact with the south - in particular Central Italy and Southern France.. But he has not contributed to our understanding of either the nature of these contacts or their significance to those participating in them.

With regard to transhumance, he does not cite any archaeological indications of its practice. Nor does he state whether he envisages it to have begun in Hallstatt D. How are we to understand the emergence of these 'shepherd Fürsten' prior to the establishment of southern contacts? And why should an essentially fuedal type of Fürst also be the shepherd and thus absent from his people for months on end? These questions cannot

be answered firstly because the idea of transhumance is inappropriate to the society we are concerned with here (even if it were practised, the way in which it would have brought about the collaboration of shepherds and Greek colonists is far from clear); and secondly, because the social and economic roles of Fürst and shepherd are taken from quite distinct societies, they cannot simply be juxtaposed.\*

It does not, therefore, seem appropriate to attribute transhumance practices to the Hallstatt D inhabitants of Southwestern Germany since neither the ecology nor the economy would have required it. Nor could their practice possibly explain the relations between the Ha D centres and their southern trading partners.

Gersbach's (1974 etc) main concern is to interpret the settlement plans. He suggests that changes in the layout can be correlated with changes in the role of the Heuneburg. During IV c he believes that the Heuneburg was the residence of a 'wohlhabenden Barbarenfürsten', ie. a political centre, which became an 'economic centre' as well following intensification of trade with the south. The layout of IV b 3 would be the result of this new role. The following are mentioned as evidence for trade with the south: imported pottery; the building techniques and layout of the mud-brick wall; the 'urban' characteristics of the craft quarter; the panelling of the southern tower; the use of mud-bricks on the floor of a workshop. He suggests that the presence of southerners - at least on a seasonal basis - would explain the details of the mud-brick wall. This could have been arranged by southern merchants, ingratiating the local 'dynasty' in order to be allowed to establish a base in their 'citadel'. In due course, the wealth and power of the ruling Heuneburg dynasty would have caused the political conflicts which led to the burning and destruction of the settlement with the mud-brick fortifications and the establishment of a new dynasty with its own burial ground.

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\* In general, one can say that transhumance is a form of migratory livestock farming practised under certain conditions which would be (a) ecological or (b) economic. In the case of Southwest Germany, there is no ecological reason for transhumance to have been introduced during the Early Iron Age. In the Mediterranean zone, on the other hand, transhumance is known to have been practised in pre-Roman times (eg. Slicher van Bath 1966, 167) and contractual arrangements for it are known from the 12th century in Southern France (Duby 1968, 147). The same should not be assumed to apply to temperate Central Europe.



Gersbach does, in fact, recognise the need to think of the Heuneburg in relation to its surroundings but regrets that

'Leider wissen wir über die Siedlungsverhältnisse im näheren wie im weiteren Umkreis der Burg so gut wie nichts, so dass sich auch die Grenzen des durch die Burg repräsentieren Machtgebildes einstweilen unserer Kenntnis entziehen'

(1974, 200)

It is this failure to use the available information on the physical environment and social context of the Heuneburg that makes his attempt at an interpretation of the settlement history inadequate. His views on southern contacts are largely derivative (from Kemmig and Dehn) and limited to details of material aspects of the Heuneburg. If his attention to detail were not restricted to the outstanding material and features, but applied equally to their context, the real impact of the southern contacts could begin to be evaluated.\*

In his unpublished 'Habilitationssarbeit' Driehaus attempts to discard some popular, and often prominently held, views on the Heuneburg complex. He also includes a larger area than is usual when discussing the Heuneburg situation.

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\* If the increased economic function of the Heuneburg is to be attributed to increased trade with the south, then this must be shown in quantitative analyses of the material on which this hypothesis is based. Since the earliest in situ find of a Greek sherd was on a house-floor in settlement IV a 1 (Lang 1974), the imported Greek pottery found in the settlement could not be the subject of analysis. Instead, the features of the settlement plans and their contents would have to be studied in minute detail. For example, it would have to be seen whether or not within the phase IV c or IV b 3 settlements, areas of exceptional material content or arrangement were found which could be interpreted as the 'southerners' quarter'. This would be expected if the presence of 'southern workers' is to be seriously considered.

The location of a 'merchants' base' within the Heuneburg would also have to be substantiated. Evidence for production, storage and distinctive facilities would be required. The context of finds of donkey and chicken bones (Kimmig 1968) and their associations may be relevant here but have not been fully published.

He points out the tautology in definitions of 'Fürstengrab' and 'Fürstensitz': viz. the rich graves near the Fürstensitze are Fürsten graves; the sites are defined as Fürstensitze due to the proximity of rich graves. This is Kimmig's definition (1969), also followed by Zürn, who even related the ranks of graves to distance from the Fürstensitz (1970, 125). Driehaus (n.d. 271) insists that not all Fürsten graves are connected with residences and that the two are not, in fact, interdependent. The Hallstatt Fürsten graves should be defined (n.d. 212) on the basis of size and gold finds;\* in general (n.d. 265) the Fürsten graves can be seen to form a group due to their exceptional contents.

He attempts to interpret the evidence from the Heuneburg graves and settlements in terms of the economic role of the Heuneburg. Following Kossack's (1959, 10) recognition of, and emphasis on, craft centres in Hallstatt C, Driehaus stresses the economic function of the Ha D Fürsten residences (acknowledging the contributions of Janklühn (1969, 81) and Zürn (1970, 120)), for example for the manufacture of the wagons found in the Fürsten graves. The technological difficulties in producing wagons, the large quantities of metal involved, the high labour input and the required collaboration of different craftsmen, are all important factors in the existence and functioning of the Heuneburg. These specialist craftsmen would - he suggests (p.276) - have to depend on their 'customers' for subsistence products and raw materials. In addition to specialist workshops he envisages large-scale production of simpler items, such as the bronze armrings known to have been made in the Talhau, also dependent on raw material supplies from long distance trade. Iron, charcoal, wood, skins, wool and 'surplus' subsistence commodities would have to be obtained from a large area serving the Heuneburg (pp.282-3).

'Die Anlagen [the Fürstensitze] repräsentieren offensichtlich recht differenzierte Gebilde mit starker wirtschaftliche Komponente, weitreichenden Handelsbeziehungen, einem grösseren Hinterland, das der Versorgung diente.'

(p.284)

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\* This would apply mainly to the Hallstatt D 2 finds in the Hohenasperg area, which will be discussed below.



He doubts the possibility of itinerant craftsmen supplying the outlying Fürsten, since the raw materials would not have been available and workshop conditions not easily met. Instead, he proposes that the extensive workshops at a Fürstensitz would have supplied those Fürsten who were not resident at the Fürstensitz and whose graves are found further away. Thus, the similarity in the contents of graves is to be expected because of the connection with the main centre of manufacture: '30 km der Heuneburg und von Hohenasperg entfernt gelegene Bestattungen verraten (dagegen) einen deutlichen Bezug zu den Zentrum' (n.d. 288).

This forms a significant part of Driehaus's interpretation, ie. the dependence of the 'Aussenposten' on the dominant 'Zentralen' which, in the case of Hallstatt D, would be the Heuneburg and Hohenasperg and as yet unknown sites in the Upper Rhine and Switzerland. Furthermore, he envisages that the different 'Abstufungen des Reichtums' would depend on the 'finanzieller Möglichkeiten der zahllosen kleinen Auftraggeber'.

He sees the grave goods of the Fürsten in terms of trade and production: 'Die Ergebnisse des Zusammenspiels von Fern- und Nahhandel, verbunden mit einheimischer Handwerklicher Kunst, spiegeln die Fürstengrabausstattungen' (p.277). But, he can offer no adequate explanation of the way in which trade and production were organised and contributed to the existence of the Fürsten. He doubts that slaves would have been used in trade for southern commodities or raw materials since the population density for northwest Europe at the time has been estimated at c.10 persons per km<sup>2</sup> (in particular for the Hunsrück and Vordertaunus); (p.272, no reference given). He suggests that copper and glass beads, possibly also tin and silk, were obtained via the Eastern Alpine area (p.278) and quotes Hartman for the origin of gold, ie. the increasing use of southern Bohemian gold during Hallstatt D. Amber could have been obtained through 'Nordkontakte' - unspecified - which were part of the Heuneburg's far-reaching trade connections. Driehaus resorts to a notion of individual ability and choice and attributes the Fürstengräber to men who could recognise the 'economic possibilities' of their time and use it to achieve high rank within their society:

'Durchaus verständlich erscheint es, dass einzelne Persönlichkeiten die sich bietenden wirtschaftlichen Möglichkeiten ihres Zeitalters erkannten, sie planvoll organisierend in bestimmte Bahnen lenkten und sich an die Spitze der dadurch entstandenen Hierarchie stellten.'

(p.290)

With regard to the Heuneburg settlement history, Driehaus does not accept the view of Gersbach (1969, 1974), Schiek (1959) and others that the shift in burial ground represented the appearance of a 'new dynasty'. Instead, he emphasises the evidence for grave-robbing as an indication of continual internal conflict at the Fürstensitz and stresses the continuity of tradition represented by the use of a settlement: a house for the living, as a tomb: a house for the dead (p.266). The cause and the nature of the conflict is not discussed. He estimates (p.287) that there would have been c.20 Fürsten graves within 120-140 years; 3-5 Fürsten would therefore have been contemporaries and hence members of one family.

Some aspects of Driehaus's interpretation can be challenged, but the value of his interpretation is in the attempt to see the Fürsten graves in terms of the economic integration of all Fürsten, not only those associated with a 'Fürstensitz'.

However, it is due to his adherence to the principles of formal economics that his interpretation is not coherent and explanation is not possible. Most important of all is his failure to recognise the 'embeddedness' of the economic institutions (cf. Polanyi 1957) and his mistaken attempt to isolate an 'economy' as found in societies with a market system. By attributing principles of supply and demand, production capacity and business acumen of individuals to the organisation of Hallstatt society, he misses the social mechanisms which control and integrate the different economic processes.

Centralised control over imported raw materials - such as tin, copper and gold - and the dependence of some members of society on others for subsistence, are recognised by Driehaus but should be viewed as results of pooling and redistribution mechanisms which form the basis of Hallstatt D economic organisation.



The debate over the appropriateness of the substantive - as opposed to the formal - approach to economic analysis of non-industrial societies is relevant here, but cannot be discussed in detail (see for example Humphreys 1969). Polanyi (1957, 248) defines the empirical economy, which is the basis of the substantive concept, as '... an instituted process of interaction between man and his environment, which results in a continuous supply of want satisfying material means.' (note the absence of 'scarce resources', 'choice' and other concepts which would be prominent in a 'formal' definition.)

Polanyi (1957), Sahlins (1972) and others have demonstrated quite convincingly that the application of market economy theory and concepts such as supply and demand, price fixing, capital, etc - are misleading and do not advance our understanding of those societies with economies that are not organised along market principles.

In order for the movement of commodities and the allocation of services to be analysed in these non- or pre-industrial societies, different mechanisms of transfer must be considered. Polanyi (following Mauss 1954) distinguished 3 main components of the economic process: viz. reciprocity, redistribution, and exchange (1957, eg. 250). He stressed the 'embeddedness' of the economic process in social institutions, which give the economic process regularity, cohesion and stability.

Although currently popular interpretations of the Ha D developments lack coherence and have limited explanatory power, they do contain relevant observations which must be used to develop an alternative framework for explaining the Fürsten phenomenon.

Firstly, there is the recognition of the special status of individuals in whose graves southern imports and other items - foreign to the region - are found (cf. Paulus, Kimmig and others). Secondly, the recognition of specialised settlements and the existence of 'dynasties' with territorial domains is found in the writings of Kimmig, Gersbach, Spindler and others. The crucial recognition of centralised production for an area exceeding the domain of individual Fürsten dynasties is found in Driehaus's work.

## 2 The formulation of a model of a prestige-good economy

It is proposed here that real progress in our understanding of the Early Iron Age in Southwestern Germany can only be achieved by the rigorous application of a model based on general anthropological theory of exchange relations, and in particular on the work of Meillassoux (1960), Dupré and Rey (1968), Dupré (1972), Ekholm (1972), Sahlins (1963, 1968, 1972), Strathern (1971) and others. Their formulations have been tested on cases in different parts of the world. The association of political power with control over access to foreign goods which are assigned high status has been observed and analysed. They have defined and demonstrated the function of these 'prestige-good economies'. The general value of their work on relations between economic and political organisation and the explanatory value of their theoretical framework will be demonstrated by the formulation and application of a model of the prestige-good economy to the Central European case.\*

Of course, the nature of the archaeological data differs from the data they used to develop their models and test their hypotheses, viz. traditional accounts, some historical documentation, and present ethnic distributions and organisation. But the different data available to prehistorians provides a unique opportunity to both extend the application of the model to different data and to test the model in constant conditions over a long period of time. The particulars of the model to be used here have been modified for this case. The model will be described in full and considered in terms of the archaeological data one would expect to substantiate it. Finally, the explanatory and predictive power of the model will be tested against the particular data of the Southwestern German Ha D case.

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\* Initially, this model was developed with M. J. Rowlands as part of a study of Ha D and Early La Tène developments in Southwestern Germany and the Middle Rhine. Here, a developed version of the model presented in our joint paper to the Prehistoric Society in September 1974 is used to demonstrate in greater detail than was then possible the internal structure of the Iron Age society in Southwestern Germany.



From situations in which control over certain kinds of valuables is, in itself, a source of prestige and power, it is possible to formulate a model of the emergence and evolution of a 'prestige-good' system which can be tested against the Hallstatt D situation in Southwestern Germany. The general model is an attempt to relate certain aspects of internal group structure to external ranking as a process of hierarchisation over time and refers to the writings of anthropologists (cited above) which have focussed on the control gained through the manipulation of external exchange relations by lineage leaders (eg. Strathern 1971), and those which have been concerned with the competitive, demographic aspects of inter-lineage competition and ranking (eg. Dupré 1972 and Ekholm 1972).

The specific economic characteristic of a prestige-good system lies in that political advantage is gained through exercising control over access to resources that can only be obtained through external trade. However, these are not the resources required for general material well-being or for the manufacture of tools and other utilitarian items. Instead, emphasis is placed on controlling the acquisition of wealth objects needed in social transactions, including bridewealth, and the payment of social debts. For such a structure to exist, it must be assumed that groups are allied to one another by generalised exchange which has been defined as the presence of rules maintaining group exogamy and prohibitions against the reciprocal exchange of women. As such, men and women marry into different lineages, resulting in the formation of alliances between them. If exchange of women is not symmetrical, then an equivalent value of some sort must flow in the opposite direction to recompense the loss of a member's fertility to the lineage. This disjunction permits the confrontation of unlike objects and therefore the valuation of women and alliances in terms of bridewealth goods.

At an early stage, in a tribal system made up of groups linked together in this form of simple alliance, it can be anticipated that only locally available goods would be available for social transactions. It would seem likely therefore that it would be those lineages that were able to produce a surplus of foodstuffs - as a function of a differential

in productive capacity - that would stand to benefit, in the short term, in the local political arena. Through investing such surpluses in people, by acquiring more wives and hence dependents, a lineage head acts to increase the demographic strength of his local support group in order to meet the demands of continuing in this competitive cycle.

Since demographic strength is the critical variable to maintain lineage dominance at the local level, bridewealth is simply the means by which control is exercised over the circulation of women and indirectly over both men and women in the sense that they may be given up as payments for social debts. A selective advantage exists, therefore, in changing the nature of the goods used in bridewealth from domestic commodities to those gained through external exchange in the sense that it would serve to secure support-group dependence and would act to direct the economic activity of weaker groups towards more dominant groups in internal alliance transactions. However, only the heads of the stronger and richer clans and lineages would have the capacity to mobilise the resources and support needed to establish trade partnerships in neighbouring groups and to mount the trading expeditions needed to sustain a regular supply of foreign wealth objects. The mutual advantages to both trade partners involved lies in the dispersal of domestic wealth objects in return for foreign ones which - in the different domains - will serve to sustain and reinforce local control over population. A logic for specialisation in craft production exists therefore in the advantage of concentrating part of the productive effort of the group for the supply of a local domestic resource that can be relatively easily transported and will serve as a wealth object to an external trading partner. Hence, at a fairly elementary stage in this process, craft specialisation becomes linked to political authority in that control is exercised over the acquisition of technical skills and over the products of such skills.

Whilst all lineages have access to external exchange, it is those lineages with the economic and demographic capacity to gain access to new sources of prestige goods or to particularly large quantities of existing prestige goods that would establish a dominant position. A cycle of differential growth in lineage size and dominance emerges



therefore which has two main aspects: Firstly, the increased capacity to obtain wealth objects through external exchange implies that a lineage head will be able to maximise his network of matrimonial alliances to obtain wives for himself and his lineage members. Secondly, it implies that poorer lineages will become dependent on more dominant lineages for supplies of wealth objects needed for their own survival. These poorer lineages will therefore be encouraged to direct their economic activity, ie. their supply of domestic resources and specialities, towards a dominant lineage rather than towards external trade partners. With the emergence of this situation, a dominant lineage will come to appear as a wife-taker to dependent lineages to whom it will supply wealth objects in return, so that dependent lineages will in turn be able to obtain wives from other groups. A spatial pattern will appear of a constellation of localised lineages ranked in relationship to each other in terms of superordinacy/subordinacy and expressed symbolically in a wife-taker/wife-giver relationship.

This more hierarchical situation agrees very closely with the pattern Ekholm has found in her analysis of the Kongo kingdom (1972), to which she adds the dimension of a cycle of social debts. Members of poorer lineages would fall into debt if unable to pay wealth objects for social debts and would instead have to deliver a lineage member to the dominant lineage. This person would be stripped of his - or her - original lineage status, and be incorporated into the superordinate group. Dominant lineages may either retain their own women by marrying them to debt slaves or give them to potential or actual allies for the creation of maintenance of external alliances. Thus, a dominant lineage becomes increasingly endogamous, keeping its own women as well as taking women from subordinate lineages. Stronger lineages increase demographically at the expense of weaker lineages and are thus able to increase their capacity to produce for external exchange and continue the cycle.

Also (as Ekholm has demonstrated (1972)), if a dependent lineage can potentially lose members to a superordinate lineage, its autonomy is put at risk. The expansionist tendencies of such a system lie therefore at two levels within its structure: at the top, through the

formation of political alliances between apparent equals, and in the creation of trade partnerships; and at the bottom, through the necessity of a dependent lineage to gain its own dependent lineage through redistributing wealth objects that it receives from its dominant lineage.

At this point in the process, a dominant lineage chief can control the internal circulation of wealth objects and narrow down and monopolise the range of items acceptable in social transactions within his domain. The use of domestic wealth objects will be devalued and restricted to relatively minor social transactions, and a sphere of foreign wealth objects will be formalised to take their place. By controlling the size of payments or the form in which payments are made, the lineage head confirms his superordinate status over the heads of segments within his own clan or lineage and over other dependent lineage heads. The chief's control over external trade in wealth objects is absolute so that he alone obtains commodities from a foreign source which he can then redistribute in the form of status insignia, funerary goods, bridewealth etc. Tribute, in the form of locally-produced commodities, is passed up through the same system. These commodities are then used by the dominant lineage head for exchange with his external trading partners.

This serves to emphasise the importance of the political control over domestic resources that form the source of exchangeable wealth for external trade. Under these conditions, there will be a tendency to select for those resources that are not found to be redistributed evenly and can therefore be more easily controlled. The exploitation of metals, salt, shells, stone etc within a domain would be controlled and the products passed up as tribute through the political hierarchy to a superordinate lineage head, or chief, who would use them in external trade.

But, when the technical skill required for the working of certain resources - such as metal - is not accessible to everyone, then control over production is as convenient as control over the actual sources. There would be considerable incentive to develop specialist skills not attainable at the local level and to control the use of these skills in



the production of prestige and status items (as observed by Dupré (1972) in the Tsengi-Nzabi system). Alternatively, the exploitation of certain resources that require labour-intensive techniques (eg. mining) would be limited to those lineage heads capable of controlling a sufficiently large workforce.

A dominant chief has to redistribute sufficient quantities of prestige goods to his subordinates. Failure to do so would undermine his superordinate status, since his dependents redistribute in turn to their dependents. In a sense, therefore, tribute is not a one-way flow but an agreed exchange between subordinate and superordinate chiefs for the maintenance of the political position of each. For this ranking to be maintained, subordinate lineages must not be allowed to participate in external trade for wealth objects. This is checked by the fact that reciprocal exchange can only occur between equals, ie. a dependent chief cannot trade with a dominant chief of another tribe. Thus, while the dominant chief is redistributing sufficient wealth objects, it is to the advantage of the subordinate lineage heads, or subchiefs, to direct their tribute to him.

A potential equilibrium exists at any point in this process of hierarchisation given a stasis between the productive capacity of local groups and the ability to gain access to new sources of wealth objects. But further expansion is possible if a dominant chief manages to maintain a monopoly on trade and acquire a new source of foreign wealth objects. He is then able to use his economically strengthened position to transform his external relations with previously dominant chiefs into internal relations of superordinate and subordinate rank. The formerly dominant chiefs would no longer be his status equals and would become vassal chiefs, no longer in a position to trade with other dominant chiefs, and would have to direct their trading activities to the now paramount chief.

From this state of the political system, three possible lines of development can be envisaged, although over time they are not mutually exclusive. Firstly, unlimited expansion - particularly at the level of the formation of new external political alliances - is likely to be

checked by the tribute demands on dependents that it would entail. The increasing demands for the exploitation of local domestic resources and the attraction of manpower into craft production, to serve the need of external exchange, would compete for labour-time needed to provide basic foodstuffs. With increasing hierarchisation, we can expect an emphasis on warfare to gain slaves to meet an increasing demand for labour. Thus, the need to expand the size of dominant clans and lineages at the expense of dependent lineages will intensify in ratio to the amount of tribute demanded and the supply of wealth items available for redistribution. This inflationary spiral has logical contradictions which would ultimately bring about the collapse of the system.

The second possibility is for the paramount chief's monopoly over external trade to be broken, particularly if external trade relations are with an economic system organised on different principles. For example, if specialist traders are representing an external source, it may be to their advantage to maximise the number of outlets and to subvert the monopoly of the dominant chief. This development is likely to occur in conjunction with the first possibility since the tendency to maximise outlets can be seen as a response to a situation of diminishing returns so far as the capacity of a local paramount to satisfy the external demand needs to maintain his own monopoly. If this occurs, then vassal chiefs may regain their independence and competing centres would develop within a previously uniform political domain. Each of these centres will compete for control over population and resources in order to expand at each other's expense and at the expense of the originally dominant centre.

Thirdly, if the external trade connections of the paramount chief are broken - either because of changes in the external system with which he is linked, or because of shifts in the location of trade routes and blocks in communication - due possibly to internal conflicts resulting from the above tendencies - then he is no longer able to maintain his superordinate position over vassal chiefs and sub-chiefs. In turn, their position will be at risk unless they are able to establish independent



external trade relations, for example with the paramount's former trade partners. Sub-chiefs in the peripheral areas will be the first to lose their supply of prestige goods and thus their means of control. The political domain will appear to contract from the periphery inwards as supplies from the paramount chief increasingly fail to percolate down through the hierarchy.

This type of structure is therefore unstable both in terms of contradictions within its internal functioning and also in terms of dependence on an external system over which it has limited control. Its internal conditions of existence rely on the capacity to mobilise lineage resources in order to maintain dominance over tribute relationships. As part of a wider regional system in which there may be a number of relays between a paramount and the suppliers of wealth objects, these systems are linked into a wider structure based on more abstract relations than have been dealt with here. It is worth noting that, as production for exchange appears to be a constant feature in the evolution of these structures, we must always deal with a system larger than the local political unit, whether it is a tribe or a state, if we are to understand its conditions of existence and transformation.

For example, the incentive for internal specialisation and increasing demand are dependent upon access to a wider productive area. Patterns of long-distance trade and alliances form the external conditions for local intensification of production and for political development of local centres at the expense of their immediate peripheries. The internal contradictions described above are realised, therefore, in the context of a wider set of external contradictions, through a dependence on external demand and a wider productive area over which such local centres have no effective political control. One can, therefore, predict a cycle in which increasing external demand can be satisfied by local intensification only at the risk of bringing into play internal contradictions which in turn create conditions of instability that threaten the security of external trading partners. At the local level, the way to maintain the structure through an increased use of force both to obtain new sources of labour as well as to cohere existing power relations would be subverted by the

response of external trading partners who would maintain their position by perverting local monopolies and by establishing new links with more stable structures.

A pattern of competing centres therefore emerges at the local level. One of these centres will be the original dominant centre. Each will attempt to extend control over the productive capacity of other centres and thereby expand at each others' expense and at the expense of the originally dominant centre. Over time, a pattern of duplication of centres at the local level will emerge. The relations between them will be organised either in terms of dependent alliances or competitive exchange and warfare as a prelude to further expansion.

It has been convenient to think in terms of a single source of external demand for understanding the development of this local pattern. But, the reality of these situations is more complex. Competition between centres at the local level is likely to be replicated and stimulated by competition for exchange at the wider regional level. Since the expansion of core centres is dependent on their capacity to monopolise their peripheries, this must entail the development of competing centres in an external core area. This in turn will create competing points of accumulation within the core area consistent with their ability to control access to resources in the peripheral areas. Hence, the emergence of local competing centres in peripheral areas is directly related to developments in the core area.

There is a point at which the centres in the core area will recognise the value of using mass-produced objects - known from experience to be to the taste and requirements of their contacts in the peripheral areas - to maintain their dependence. In contrast to the previous phase of exchange between core and periphery - in which existing, heterogenous sumptuary items were used - a situation is now found in which in an increased interdependence has stimulated core centres to devote part of their productive effort to the manufacture of a restricted range of wealth objects. This development would coincide with the incentive for intermediaries to adopt a more specialised role in their intervention



between core and peripheral centres. A middleman function already exists in controlling and facilitating flows of goods along natural communication routes, but a more secure position exists in directly supplying the manufactured goods and luxury items primarily for specialist traders. With gradual acculturation of populations in the immediate hinterlands of the core centres, an intermediate zone is formed between core and periphery. In many cases, it can be expected that these populations are largely dependent on playing a middleman role in the exchange between core and periphery. There is also a tendency for a spatial extension of the intermediate zone into the peripheral zone, such that the system's peripheral zone is constantly being extended outwards.

Finally, two patterns of change can be predicted within the system as a whole. Firstly: the internal contradictions within peripheral domains combined with competition for advantage among core and intermediate centres will generate a regional pattern of considerable complexity seen in the expansion and decline of different centres in all 3 zones. Hence, we can expect localised shifts in dominance in one part of the system to affect - either directly or indirectly - other parts within the regional system. However, since the relationship between the core centres and peripheral areas is the basis of the regional system, crises in the core area could lead not only to a shift in dominance in the peripheral area, but also the collapse of the whole system of dominance. A crisis in the core area can therefore undermine the system of dominance that it has generated on its periphery. Hence, the relations between core centres are critical for the maintenance of the system as a whole, whilst crises in the peripheral areas will represent only minor oscillations of shifting dominance.

Secondly: the peripheral domains will be at greatest risk if a crisis occurs in the regional system as a whole. Increasing antagonistic relations between core centres could disrupt the regional system and the stresses thereby set on the peripheral zone would put the very survival of the peripheral structures at risk. Thus, the rivalry between core centres will be overshadowed by the repercussions in peripheral domains, which may in turn threaten the existence of the core centres.

### 3 The archaeological indicators

The processes embodied in the general model imply certain essential characteristics that, when translated into material culture form, can be used to reinterpret the available archaeological data in a more meaningful way. At this point, there is an inevitable loss in analytical depth and precision as the transition is made from general modelling to hypothetical transformation of the model into material culture terms and subsequently the matching of material expectations to what is available in the archaeological record.

In the structure outlined in the model, political power is not directly linked to subsistence; so that by definition foodstuffs would not be passed up as tribute. Therefore we need not expect the intervention of centralised political authority in subsistence production, involving either technological innovation or the introduction of new crop complexes in order to increase surpluses. Instead, mobilisation of resources occurs within clan or lineage segments for the support of local leaders, subchiefs and paramount chiefs. Local resources include both foodstuffs and local specialities, but it is the production of the latter that is more likely to be controlled and at least in part passed up as tribute for redistribution and use in external trade. As a correlate of this, we can expect direct control to be exercised over certain craft activities, particularly over the production of those artifacts requiring degrees of technical skill to which high value and esteem could be attached, eg. metalwork, pottery and cloth. Hence, there should be a degree of correspondence between the esteem or value attached to certain craft items; their significance as status conveyors in the political system and the point in the political hierarchy at which control is exercised over their production. We might expect therefore that fairly utilitarian items - such as woodwork, basketry and domestic pottery - would be manufactured at a domestic household level; low value commodities such as tools or simple ornaments manufactured at the village level; and through an ascending hierarchy of grades of wealth objects and insignia, to the production of the most sophisticated craft items being controlled at the paramount level.



This kind of situation should be reflected, firstly, in settlement material with evidence for political control or intervention in craft production at certain levels in a regional hierarchy. Secondly, there should be greater stylistic variation lower down in the craft good hierarchy rising to greater stylistic uniformity in the high status goods of regional distribution. Thirdly, each level should be marked by increasing technological sophistication in the use of materials, skill and labour in craft production. This in turn would place a greater responsibility on more dominant chiefly clans or lineages to support craft specialists. Since dominance is largely a function of the productivity of support groups, the demand for labour increases in proportion to relative importance in a chiefly hierarchy. The support of part-time to full-time specialists and the intensification of craft production for internal redistribution and for external exchange depends, therefore, on the capacity of a paramount chief's support group to intensify food production, primarily by changing the ratio of labour to land rather than through technological innovation. Hence, chiefly power is ultimately contingent on the number of dependents absorbed into a chiefly clan or lineage, a factor which may be reflected both in the settlement pattern evidence (size and number of domestic structures, storage of food surpluses, workshop areas) and possibly in the burial practice (eg. ranking in secondary burials in relation to primary 'chiefly' burials).

As already discussed, external exchange between trade partners involving the reciprocal exchange of domestic resources and wealth objects is the basis of the cohesion of this political structure. Inter-regional trade, therefore, can be seen as a series of links between the heads of separate political domains and between them and specialist traders representing more distant trade partners. What passes between them may be both a mixture of foreign status items as well as exotic raw materials which could be fashioned locally into wealth objects and status insignia for redistribution. Internally, the distribution of such items within a domain should show a high degree of stylistic uniformity and a scalogram effect in the sense that a more complex assemblage of status insignia and wealth objects can be anticipated at higher levels in a chiefly hierarchy than at lower levels. Hence in a strongly hierarchical structure, vassals

and sub-chiefs are likely to obtain insignia of their status from a paramount, so that political ranking will be represented by differential access to status insignia and regalia. Both of these effects in the distribution should in turn be confirmed by technical and compositional evidence linking widely dispersed craft items to a single, centralised point of manufacture which, in the case of the more important categories of insignia and wealth objects, should be situated in the settlement of a paramount chief. Similarly, where more than one domain is linked to a common external source of foreign imports and raw materials, it is unlikely that clear cut differences in wealth and insignia will be found in each domain, although it could be anticipated that different values will be applied resulting in different combinations of materials and artefacts in different domains.

The extent of a domain and the definition of its sub-domains in an archaeological context could be recognised minimally by the uniformity of particular combinations of prestige objects, by tracing them to centralised points of manufacture and distribution and contrasting their distribution with the greater stylistic variation of domestically produced commodities. The structure of each sub-domain can also be defined by the different ranked status of burials, reflecting levels in the political hierarchy. In some cases the presence of secondary burials in a tumulus may be used to understand the internal ranking within a group.

Spatially, the political structure appears as a series of sub-domains within a single political domain. At the most developed stage in the hierarchisation process, each domain or sub-domain will have a paramount or vassal chief at its head. The vassal chiefs would be linked by tribute relations to the sub-domain of a paramount. Below the vassal chief or paramount, one can anticipate at least one level of sub-chiefs who could have political authority over a number of village heads or over an intermediary level of lesser chiefs.

Whilst control over external trade is a prerogative of the paramount, the control is restricted to those resources and items that carry highest status or value in internal and external exchange transactions. Control



is exercised therefore not by force but by limitations on the kind of goods that lesser chiefs are able to mobilise for external exchange. Hence, it should be impossible for them to obtain external trade partners and receive those goods that are in fact controlled at a higher level. The structure itself therefore determines what kind of goods or resources can be channelled into external exchange at different levels within the hierarchy. In the sense that vassals and sub-chiefs are legitimated through their relationship to a paramount, they have a vested interest in maintaining the structure as long as the tribute/redistribution network continues to maintain their position. Ideological functions will also act to maintain and legitimate the structure, particularly in the framework of mythical charters and ritualised access to resources and rights to modes of address, behaviour, costume and other ceremonial and ritual paraphernalia.

Since the position of a paramount depends on his controlling external exchange of highest status goods, he in turn acts as a dependent of an external system whose structure may be only vaguely comprehended. In the same way as vassal chiefs will have a number of the accoutrements of a paramount, the paramount will take on patterns of dress, custom and even burial rites characteristic of the cultures with whom he is in contact.

Finally, certain tentative predictions can be made concerning the patterns in the archaeological record that can be predicted from our understanding of the logical contradictions inherent in such structures. For example, internal conflicts within a dominant clan or between it and rival aristocratic lineages, resulting from the intensification of tribute and redistribution required in order to maintain expansion, could be witnessed in evidence of hostilities and dynastic change at the paramount's centre. Such a state of insecurity would put the perpetuity of external exchange relationships at risk. If external partners solve their problems by establishing links at lower levels in the hierarchy, then a collapsed pattern of competing centres within a previously uniform domain should emerge, with each subdivision now being distinguished by the same criteria that had previously characterised the domain as a whole. In time, it

would be possible for a reunification to occur based either on what was previously a sub-domain of a vassal or sub-chief, or more likely - in order to establish genealogical or ritual continuity - by the replacement of the paramount dynasty by one of his vassals who would find it convenient to occupy the paramount settlement and ideologically assert his continuity from the previous dynasty. Frequent conflicts of this kind might, in the long run, encourage external trading partners to establish new links with other less hierarchical domains and sever their links with such unstable structures. In this situation, the structure of the whole domain will be at risk as paramounts, vassals and sub-chiefs are no longer able to meet their redistribution obligations. The domain will appear to contract inwards towards the centre as peripheral sub-domains lose control over population and collapse to lower order levels of organisation. In response, heads of more aristocratic clans or lineages will be drawn into the centre since the resources available will be directed primarily to the maintenance of the paramount's sub-domain at the expense of his dependents. This process will result in the appearance of a small, compacted central domain contrasting with and surrounded by a hinterland of small centres, politically disunified above the village level and competing with each other for population and trade.

#### 4 The application of the model to the Southwestern German Hallstatt D case

There is now considerable evidence to indicate that the emergence of a powerful chiefdom in the Heuneburg area in Ha D was due to internal changes in the Ha C, Alb-Salem culture, rather than due to conquest or a change in population. Continuity is recognised in the tumulus cemeteries, which have both Ha C and D 1 burials, eg. ZAININGEN, EBINGEN, SALEM; in the burial rite characteristic of Ha D, ie. inhumation, which is seen to begin in Ha C; in continuity of settlement, eg. at the HEUNEBURG; and in the continued use in Ha D of pottery styles of Ha C origin (Paret 1933-35b, 1935-38; Zörn 1943). Some Ha C - and possibly D 1 - burials have horse-trappings (eg. TROCHTELFINGEN, TRUCHTELFINGEN DOTTINGEN) which can be related to those found in burials to the East in Southern Bavaria, eg. TANNHEIM. But, as is well known, the D 1 developments in the Heuneburg



area coincide with the establishment of trade links between the western part of Central Europe and Greek colonies and Etruscans in the western Mediterranean via the Rhône valley and the Western Alpine passes.

The model described above will be used to explain the emergence of the 'Heuneburg phenomenon', its internal structure and its position within the wider network of its eastern and southern (Mediterranean) contacts.

The vast majority of Ha D 1 evidence is from burials: it will be analysed in detail below. The main settlement evidence for D 1 - representing a break with Ha C - are the fortified settlements at the HEUNEBURG (continuing into D2 - D3) and at the KAPF (Spindler 1971 and Hübener 1972) (only D 1, corresponding with Heuneburg-IVb and a). There are indications - viz. scattered finds, reports of 'floors' etc (eg. cited by Zürn (1943)) - of a dispersed localised settlement pattern in D 1. TALHAU is the best example we have of an open settlement, but its situation, complexity of internal organisation and function make it unlikely that it is representative of the standard open settlement.

It is suggested that each of these fortified settlements and their associated Fürsten graves represents the top of the political hierarchies described in the model.

In the case of the MAGDALENENBERG (Spindler 1971, 1972a, 1973), there is only one Fürsten grave. In the same tumulus there are probably over 100 secondary burials, of which 82 have been excavated and published. There is considerable variation in the contents of these secondary burials and both cremation and inhumation are found. It is suggested that these graves represent the lineage members of the initially paramount chief, whose status as paramount was short-lived before his subordination to the emergent Heuneburg paramount. It is likely that most were buried when the Magdalenenberg chief was a dependent of the Heuneburg paramount. The MAGDALENENBERG does, however, appear to be the first representative of this political structure in southwestern Germany.



Within the grave goods, distinct associations of personal ornaments are designated as men's or women's costume; in the case of women's costume, two successive styles are recognised in overlapping burials, no.69 and 71: simple ribbed band earrings, plain belt plaques etc preceded the hollow ring jewellery and decorated belt plaques. The different status of certain male and female lineage members is clearly indicated by the considerable quantities of glass and amber or gold beads, the number of earrings (up to 22), neckrings, broad armbands; and in the case of men: iron daggers, spear-heads and razors. Other items, such as simple armrings and fibulae, and a miniature pottery vessel, are found in almost all graves.

The central burial was thoroughly robbed whilst the chamber was still intact, leaving only small fragments of horse trappings, including strap crossings, bits of bronze and iron sheet, spokes with iron nails - which had probably secured a fur or leather covering (Spindler 1971). (Paret 1935 and Schiek 1954 mention bronze covering, but this has not been confirmed by Spindler's excavations.) The nature of the spokes and the horse trappings are generally regarded as dating to the transition from Ha C to Ha D (eg. Spindler 1972a, 19; Schiek 1954, 156, note 16), as are some of the early secondary graves, especially the cremations. Some early Ha D burials are indicated by certain pottery of Alb-Hegau tradition (eg. 68 and 78; associated with the cremation rite, grave 40, Spindler 1973, 14, 1972a, 17)\*

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\* The tumulus cemetery at MAUENHEIM, Kr. Donaueschingen, contained 20 + tumuli and at least 11 flat graves (Aufdermauer 1963; Sangmeister 1964; Wamser 1972). Even the recent excavations by Wamser have not always involved the total excavation of a tumulus and for that reason the detailed results are not totally satisfactory. In 2 tumuli, ie. M and N, Wamser reports the excavation of graves with wagon remains, which consist of bronze or iron sheet coverings from the hubs and some iron nails, also cylindrical fittings (his Taf.9, 10-15, and Taf.16, 2) as known from other D 1 wagon burials. Their association with amber ring beads, glass and gold pieces and the general association of these graves with others containing bronze belt plaques, snake and bow fibulae, iron spearheads, lignite armbands, ribbed band earrings etc would indicate access to the same range of items as found in the MAGDALENENBERG graves. At this stage there is no evidence for a local manufacturing centre and it is suggested that the MAUENHEIM graves represent dependent chiefs of the MAGDALENENBERG paramount or vassal. The simple bronze arm or foot rings, cf. those found in Tumulus Q, grave 2 - which are described as having a very rough, unfinished surface - would by contrast be locally made. This cannot possibly be proposed for the bronze 'barrel' armbands (Tum.U, grave 2) or the standard D1 bronze items mentioned above.



Connections with the Bavarian or even Eastern Alpine region are suggested by: the horse trappings in the central burial; the decorated belt plaques (graves 71, 72, 78) which Kilian-Dirlmeier (cited by Spindler 1973, 13) believes to be related by the type of decoration and its arrangement to Bavarian or Hallstatt parallels; the double horned fibula in grave 81 is of Slovenian origin.

The existence of connections with chiefdoms to the west and indirectly with emerging western Mediterranean trading networks is indicated by the presence of an Acebuchal type of belt-hook in grave 65 (Spindler 1973, 1972b). The direction of the exchange by which gold, glass, amber, lignite and copper were obtained can only be surmised. At this stage, it can be suggested that the Eastern exchanges were dominant and that it was the intervention of the Heuneburg chief in this exchange which enabled him firstly to control the flow of valuables to the Magdalenenberg paramount; secondly to dominate and subordinate the Magdalenenberg paramount; and thirdly, to take his place in exchanges with the Upper Rhine Centres and thus indirectly enter into the western Mediterranean network.

The primary evidence for the internal structure of the Heuneburg political domain comes from burials. On the basis of this evidence four levels in the political hierarchy can be defined:

(1) Paramount chief status This is defined by inhumation burial in a wooden chamber, containing a wagon and horse trappings, imported (or locally made) bronze vessels for wine drinking, imported gold sheet and objects, silk and gold thread, large quantities of cloth, imported glass, amber and coral. The wagon and inhumation burial are traditional Ha C indicators of chiefly status (Kossack 1959; Ruoff 1974) but the other features are characteristics of Greek and Etruscan burial custom and status.

(2) Vassal chief status This is defined by a similar, but simpler, burial by inhumation with a wagon, horse trappings and bronze vessels. However, many of the imported sumptuary items - including the gold, the

quantities of glass, the amber and coral - are lacking. Instead, technically sophisticated bronze weapons and jewellery are found; there is evidence to indicate that they were produced at the paramount settlement.

(3) Sub-chief status This is defined by the presence of a wagon or usually by a part of a wagon associated with burial by inhumation. Contents may include imported items, also elaborate bronze daggers, belt-plaques, bronze or lignite armbands of centralised manufacture and distribution.

The distinguishing characteristic of all three of the highest status levels is the presence of a wagon which has been shown by Kossack (1959) to be a traditional indicator of high status during the Hallstatt period in the eastern and western zone north of the Alps.

Below the sub-chief level, two other status levels can be recognised:

(4) Minor chiefs or village chiefs status is defined by exclusion from wagon burial and absence of imported sumptuary items. However, some of the centrally produced items - such as daggers, belt plaques and arm-bands - are found in some burials, as are the widely distributed, small items of bronze jewellery, such as earrings and fibulae. Other items, which appear to be locally produced, such as simple bronze arm- and foot-rings, iron weapons and pottery, are among the contents.

(5) Most of the burials below the first four status levels are less likely to have been recorded and are usually known to occur as poorer secondary burials in tumuli. The usual contents are represented by simple bronze ornaments, such as a fibula or armring, an iron implement - such as a knife or a spear-head. In many cases, however, it can still be said that certain items - like the fibulae - were centrally produced and must have been redistributed through the chiefly hierarchy to this low status level.





Using these definitions, it is possible to reorganise the grave contents in tabular form to show a scalogram effect of descending frequency in combinations of elite goods in what is assumed here to represent differential ranking in the political hierarchy, *Figure 26*. The general validity of these subdivisions would seem to be confirmed when plotted on a distribution map showing the subdivisions of the paramount chief and those of his vassals, *Figure 27*. Vassal domains can be recognised based on VILSINGEN (Kr. Sigmaringen) (Schiek 1952, 1956; Zörn 1970); WINTERLINGEN (OA. Bailingen) (Schiek 1954; Paret 1933-35b; 1961, 254); EBINGEN (Kr. Balingen) (Paret 1935, 1933-35b, 1935-38); GROSSENGSTINGEN (Kr. Reutlingen) (Paret 1935-38, 1961, 255; Schiek 1954; Rochna 1962); SULZ AM NECKAR (Kr. Horb) (Paret 1935; Schiek 1954); EGGINGEN (Kr. Ulm) and BUCHHEIM (Kr. Stockach) (Schiek 1954; Paret 1935); 'URACH' (Kr. Reutlingen) (Schiek 1956, 132), and at least three other - as yet unidentified - centres.

The empirical evidence seems initially to fit the pattern predicted in the indicators quite well. All status ranks within the Heuneburg domain appear to be defined in relationship to each other through their differential access to polythetic sets of status items which - in 10 out of 14 cases - can be justifiably interpreted as foreign prestige objects or access to centrally produced status items necessitating high degrees of technical skill and the use of imported raw materials. The table would also appear to display a second pattern of variation reflecting a difference in the function or value attached to these different items. Whilst the first six items (wagon, horse-trappings, bronze vessels, cloth, gold, glass/amber/coral) co-vary on a presence/absence basis with rank, the lower order items - in particular the smaller items of bronze jewellery such as earrings, fibulae and armrings - occur at all levels in the hierarchy. In other words, if these polythetic sets simply represented status insignia, then one would expect these lower order commodities to occur mainly at the lower rank levels. Instead, these items are found at all levels of the social order and seem better interpreted as items indicative of adult social status and clearly needed to be acquired by all social adults. They could not, therefore, be used to indicate political rank but performed more general functions within the society.



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Figure 27: List of sites

- |    |   |    |  |
|----|---|----|--|
| 1  | HOHMICHELE, Gem. Heiligkreuztal                   | 40 | WÜRTINGEN-ST JOHANN<br>Gem. Würtlingen |
| 2  | KLEINE HOHMICHELE, Gem. Heiligkreuztal            | 41 | STEINGEBRONN, Kr. Münsingen            |
| 3  | LEHENBÜHL, Hundersingen                           | 42 | MARBACH, OA. Münsingen                 |
| 4  | BETTELBÜHL, Hundersingen                          | 43 | OBERSTETTEN, OA. Münsingen             |
| 5  | 'RAUHER LEHEN' ERTINGEN, Kr. Saulgau              | 44 | INDELHAUSEN, Kr. Münsingen             |
| 9  | LAIZ, Kr. Sigmaringen                             | 45 | ZAININGEN, Kr. Münsingen               |
| 11 | SIGMARINGEN 'ZIEGELHOLZ'                          | 46 | BÖTTINGEN, Kr. Münsingen               |
| 12 | VILSINGEN, Kr. Sigmaringen                        | 47 | BERGHÜLEN, Kr. Ulm                     |
| 13 | ENGELSWEIS, Kr. Stockach                          | 48 | ASCH, OA. Blaubeuren                   |
| 14 | RINGENBACH, Kr. Sigmaringen                       | 49 | TOMERDINGEN, Kr. Ulm                   |
| 15 | BUCHHEIM, Kr. Stockach                            | 50 | BEIMERSTETTEN, OA. Ulm                 |
| 16 | LUDWIGSTAL, Kr. Tuttlingen                        | 51 | ERMINGEN, OA. Blaubeuren               |
| 17 | MAGDALENENBERG, Villingen                         | 52 | EGGINGEN, OA. Blaubeuren               |
| 18 | MAUENHEIM, Kr. Donaueschingen                     | 54 | EMERKINGEN, Kr. Ehingen                |
| 19 | BARGEN 'ZIMMERHOLZ', Kr. Konstanz                 | 55 | ÖPFINGEN, OA. Ehingen                  |
| 20 | DAUTMERGEN, Kr. Balingen                          | 63 | HAILTINGEN, OA. Riedlingen             |
| 21 | SULZ-AM-NECKAR, Kr. Horb                          | 64 | BUCHAU, OA. Riedlingen                 |
| 22 | DÜRRENMETTSTETTEN, OA. Sulz                       | 65 | 'URACH', Kr. Reutlingen                |
| 23 | DORMETTINGEN, Kr. Balingen                        | 66 | TÜBINGEN 'FLURGEIGERLE'                |
| 24 | BUBSHEIM, Kr. Tuttlingen                          | 67 | WOLFENHAUSEN, Kr. Tübingen             |
| 25 | HOSSINGEN, Kr. Balingen                           | 68 | SALZSTETTEN, Kr. Horb                  |
| 26 | EBINGEN, Kr. Balingen<br>(Schmiechatal)           | 69 | HOCHDORF, Kr. Horb                     |
| 27 | EBINGEN, Kr. Balengen<br>(3km SW of Ebingen)      | 70 | UNTERTALHEIM, Kr. Horb                 |
| 28 | EBINGEN, Kr. Balingen<br>(Degenfeld)              |    |  |
| 29 | TRUCHTELFINGEN, Kr. Balingen                      |    |  |
| 30 | HERMANNSDORF, Kr. Sigmaringen                     |    |  |
| 31 | BITZ, OA. Balingen                                |    |  |
| 33 | GAUSELFINGEN, Kr. Hechingen                       |    |  |
| 34 | WINTERLINGEN, OA. Bailingen                       |    |  |
| 35 | HARTHAUSEN AUF DER SCHEER,<br>Kr. Sigmaringen     |    |  |
| 36 | GROSSENGSTINGEN, Kr. Reutlingen                   |    |  |
| 37 | GROSSENGSTINGEN, Kr. Reutlingen                   |    |  |
| 38 | MEIDENSTETTEN, Kr. Münsingen                      |    |  |
| 39 | 'BURRENHOF' ERKENNTSBRUCHWEILER,<br>Kr. Nürtingen |    |  |



But, there is considerable evidence to suggest that even the band earrings and snake and bow fibulae were centrally manufactured and distributed, ie. their complexity of form and general uniformity of style would indicate non-local production and distribution. This pattern of uniform value and centralised manufacture and distribution would support their being interpreted as prestige items required for various forms of social exchange and transactions, not as political status indicators.

The way in which the different levels in the hierarchy are linked to each other and ultimately to the paramount chief can be shown in greater detail. As stated above, the three highest status levels are linked by possession of a wagon. As Kossack (1959) and Driehaus (n.d.) have pointed out, these are complex artifacts composed of elements requiring different kinds of specialist skills. Schiek (1954, 1956) has shown that all the wagons of D 1 (his type A) have marked similarities in the details of their construction. Thus, Schiek (1956, 132) describes the similar hub arrangement of the HÜGELSHEIM, VILSINGEN, WINTERLINGEN graves and a grave of unknown location in the URACH area: ie. iron rings with a bronze sheet covering. An iron ring joining the 'Nabenhals' to the 'Mittelstück' (hub) covered with bronze, is found in all the above graves and also in HOHMICHELE VI. The Vilsingen wagon had bronze hub-caps as did the wagon from SULZ a.N. (Paret 1935, 21; Schiek 1954). Among these wagons, the HÜGELSHEIM, VILSINGEN and WINTERLINGEN are described by Schiek (1956, 133) as forming a 'special group' within Type A because the details of their construction are so alike that he believes they must have come from a single workshop. All the D 1 wagons listed by Schiek (1954) have large-headed iron nails fixing the iron tyres to the felloes\*. Different types of semi- and cylindrical fittings are found at HOHMICHELE VI, VILSINGEN, HÜGELSHEIM and LAIZ. Bronze spoke covering is found at VILSINGEN and HÜGELSHEIM; and various types of strap crossings are found in HOHMICHELE VI, BUCHHEIM, EBINGEN and KAPPEL.

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\* Iron nails (large-headed): VILSINGEN, HÜGELSHEIM, SULZ a.N., BUCHEIM, GAUSELFINGEN, ENGELSBACH, ENGELSWEIS, EBINGEN, BITZ, MAGDALENENBERG (Paret 1935, 25).

Iron tyres: HOHMICHELE I, LAIZ, HÜGELSHEIM, VILSINGEN, KAPPEL and others (Schiek 1956, 135).

In Ha D 1, the manufacture and distribution of these wagons must be attributed to the HEUNEBURG (cf. Driehaus n.d.). Significantly, iron tyre fragments and large-headed nails are known from the settlement.

The form and materials of other grave goods show further connections between these graves: for example, there are iron 'Hiebmesser' in HOHMICHELE VI, VILSINGEN and WINTERLINGEN (and STEINGEBRONN, without a wagon). Similar imported bronze vessels are found in VILSINGEN, WINTERLINGEN and ERTINGEN. Harness fittings occur in BUCHHEIM and HOHMICHELE VI (ie. distinctive types of strap-crossing). There are particularly striking similarities in the grave contents of the paramount burial at HOHMICHELE VI and the sub-chief burial at ERTINGEN (Paret 1933-35a; Schiek 1954, 1956) which is within the HEUNEBURG sub-domain. They share certain forms of bronze pendants, amber and glass beads and whetstones.

These connections between sub-vassal and paramount chiefs are further strengthened by the evidence for centralised production of bronze, iron and lignite objects, painted pottery and cloth (Bittel and Rieth 1951, 50) in the HEUNEBURG. Large scale bronze-working, ie. the many 'workshop areas' in Phase IV levels and the indications of casting debris, moulds, discarded castings, are relevant here. Although iron-working is noted in many publications, very few details of the evidence are given. The most detailed data is still that of Bittel and Rieth (1951, 33-4, Taf. 10 and 11, Abb.5a and b) in which iron material from a trench within the settlement is described and illustrated: it included knife fragments, even a thrusting knife (Hiebmesser), and the pieces of iron tyre and nail. Bronze working and finds of fibulae, sheet bronze and scrap are referred to by Kimmig and Gersbach (1966, 1971), Kimmig (1968, 1975).\* Bittel and Rieth (1951, 32ff, Taf.11) refer to moulds and other casting evidence from the site. The extent and the nature of bronze and ironworking on the HEUNEBURG is still unpublished and has to be deduced from the finds in the burials and their interpretation.

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\* Only the exceptional mould fragment from the base of the handle of an Etruscan type bronze flagon has been published in detail (Kimmig and v. Vacano 1973).



Bone spacer beads are found, lignite and jet working is also known to have taken place (Rochna 1962, Kimmig 1968). In addition, as Zörn (1943) had predicted, the centre for the production of the characteristic painted pottery of D 1 has, on the basis of the range and variety of finds there and the specialised firing techniques involved, been located at the Heuneburg (Bittel and Rieth 1951; Kimmig 1968, 78).

According to Kimmig (eg. 1968), the glass found in the graves was made locally - at the Heuneburg. From the large numbers of loom weights and needles found on the fortified and open sites, we know that cloth production was on a large scale, and from the cloth embroidered with silk or golden threads found in the Fürsten graves, we know that some of the cloth was of extremely high quality (Riek and Hundt 1962; Hundt 1969). It was probably distributed as a prestige item, thus contrasting with locally made material. In other words, there is direct evidence of workshop production as well as the stylistic and technical evidence to link the distribution of most of the status insignia and wealth objects found in the sub-domains to the paramount centre. The objects distributed from this centre also vary in quantity within each sub-domain and are found in large numbers only within the Heuneburg sub-domain, eg. HOHMICHELE I contained more than 400 glass beads, amber bead necklaces, and large quantities of cloth (lining the chamber and covering the wagon), whilst elsewhere they are found in much smaller quantities.

As mentioned in the indicators, this pattern of centrally redistributed prestige items showing marked uniformity in style, should contrast with regional variation in the locally produced, primarily domestic, craft items. At the present time, this pattern is found for the domestic pottery: many local wares were produced on the Alb during the Ha D 1 period (Zörn 1943), in contrast to the richly decorated forms that were manufactured at and distributed from the HEUNEBURG. It is significant to note that of all the items found in the graves of every rank, only certain kinds of ironwork and pottery can be said to be of local manufacture. Hence, items that were considered of importance to be disposed of in funerary ritual appear to be mainly those that were distributed through the chiefly hierarchy. Also, as Driehaus (n.d.) and others have noted,



craft skills were invested in the production of items that required considerable technical expertise, combinations of raw materials and workshops to produce: ie. items that were being passed down were also symbols of chiefly control over complex craft skills and the acquisition of raw materials that could not be replicated at the local level. The centrally produced and distributed items are more complex in technique than those made locally and may have been either imported or manufactured at the centre from imported raw materials, ie. hollow bronze neck-rings, 'barrel' armbands of bronze sheet or lignite, bronze sheet earrings, amber beads and pendants, glass beads, bronze pendants or imports, such as the snake fibula with rosette and horns from EBINGEN (Paret 1933-35b). Where found in small quantity the status value of the item is likely to be considerably increased, eg. 1 glass bead in a grave at EBINGEN and others from DURRENMETTSTETTEN (Paret 1924) MAGDALENENBERG graves.

If this interpretation of the distribution of prestige objects as reflecting the extension of political control by the paramount chief is correct, then confirmation can be expected from evidence of tribute being passed up from sub-chiefs and vassal chiefs to the paramount. In this regard there is said to be evidence for prehistoric iron-working on the Uracher Alb (eg. Paret 196): thus iron working can be proposed as specialist activity in the GROSSENGSTINGEN and WINTERLINGEN sub-domains on the Alb. The exploitation of lignite in the (Balingen) area of the EBINGEN sub-domain has already been demonstrated by Rochna (1962). It seems likely, therefore, that the iron and lignite known to have been worked at the Heuneburg were passed up as tribute by the vassal chiefs of these sub-domains. Furthermore, the worked lignite was used in external exchanges: eastwards, in southern Bavaria, and westwards, in the Upper Rhone centres (from where it would have been further distributed to Switzerland, especially the Bern area, Alsace, and west of Freiburg i. Br.).\*

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\* Rochna regards the armrings, narrow and broad armbands found in Southern Wurttemberg as D 1 material; their occurrence in the more distant regions of Switzerland and Alsace are generally regarded - by him and others - as of a later (mainly D 2) date (1962). He stresses the location of the lignite finds on river crossings in Bavaria, and their association with the characteristic pottery with red painting on a white background (cf. Kossack 1959). He also emphasises the problem of locating the sources of lignite and suggests that in D1, at least 3 types were in use. The lignite material of armbands found in TAILFINGEN-TRUCHTELFINGEN, ERTINGEN, DOTTINGEN and TANNHEIM is the same. This supports the proposed centralised manufacture and distribution from the HEUNEBURG, despite the fact that some material found there is of a different type.



The inclusion of hides and fleeces, boars tusk (mounted in bronze in HOHMICHELE VI) and an iron ore pendant in paramount graves can be interpreted as symbolic representations of tribute given to a paramount by his vassals.

This evidence appears to confirm the predicted material flows that articulate the sub-domains in a hierarchical relationship to the paramount chief. Clearly, if the redistribution of wealth objects, possibly together with more basic materials, was the primary responsibility of the Heuneburg paramount to his vassals, then his capacity to do so depended ultimately on his ability to mobilise the necessary resources to maintain specialist craft activity at the centre, to store and redistribute their craft products and foreign prestige goods, and to organise the external flows of the domestic resources of his domain. The paramount's ability to perform these functions seems to have been determined to a considerable extent by the size of his household and its productive capacity to supply craft specialists with foodstuffs and probably to support other 'retainers' attached to his household. There is no evidence that foodstuffs or labour were demanded as tribute nor that the development of powerful chiefdoms in Ha D 1 was accompanied by intensification of the agricultural system, either in terms of new crop complexes or new tools. One must conclude, therefore, that a paramount's position depended largely on the size of his household in order to mobilise more labour - and therefore produce - on more land than other households at lower levels of the hierarchy. The large granaries within the fortified Heuneburg settlement (phases IVa 1 and 2) would have been needed to store grain for consumption and seed. A very rough estimate of the size of a paramount's household, in comparison to lesser chiefs, can be gained from the more recent excavations of secondary burials associated with a paramount in a tumulus, viz. at the MAGDALENENBERG there are well over 100 secondary burials associated with a Fürsten grave and dated principally to Ha D 1, whilst at MAUENHEIM, which can be interpreted as a sub-chief level of the MAGDALENENBERG hierarchy, there were 10 secondaries in each of two tumuli with wagon graves (Spindler 1971, 1972a, 1973; Wamser 1972). Figures for other Fürsten graves are distorted by poor or partial excavation combined with robbing and destruction of the graves in antiquity.

Tumuli belonging to lower categories than these have sometimes survived intact and tend to be associated with an average 3-5 secondaries so that although the figures are in themselves unreliable, there does seem to be an overall pattern of declining numbers of dependent burials associated with ranking in the political hierarchy. A simple analysis of the surviving secondary burials in the HOHMICHELE indicates that internal ranking within these lineages/households existed, *Figure 25*, in that access to insignia and wealth objects within the lineage replicated to some extent the inter-lineage ranking found within the domain as a whole.

The hypothesis presented in the model predicted that if access to different sets of prestige goods was regulated and control of their use was the basis for manipulating power relations, then this would be confirmed by evidence of centralised production and the exclusivity of the distribution of such goods in burial and other contexts. *Figure 26* confirms that Ha D 1 wealth goods in the Heuneburg area do divide into such predicted groupings and that different categories of items appear to have been distributed and acquired consistent with the different levels of rank and status. The distribution of these graves, *Figure 27*, also shows that persons of the highest rank were part of a dispersed hierarchy and were not 'in residence' at a paramount centre. The Heuneburg paramount formed the centre of a network of political alliances (dependent in terms of his subordinates and equivalent if not competitive with his external partners) that politically integrated a large area of Southwestern Germany (mainly Baden-Württemberg). The spatial pattern in particular predicts a system of semi-autonomous small chiefdoms (ie. relatively self-sufficient economically and socially), the heads of which recognise one of their number (at the Heuneburg) as of paramount (ie. superordinate) status. Since their relationships of superordinacy/subordinacy to each other is determined by success in competitive exchange, access to external trade and size of following, a paramount would effectively be 'primus inter pares', successful only for so long as he is able to dominate the local exchange and redistribution networks, through access to more powerful trading partners than subordinate chiefs can acquire.



Hence for a paramount at the Heuneburg, confirming and extending his external trading partnerships is critical for maintaining and enlarging his position. We are therefore presented with two potentially different patterns in the archaeological record. Firstly, burials of dependent chiefs that would contain high status prestige items which can be derived principally from the Heuneburg paramount and his external trading network. Secondly, burials of his exchange partners that might contain gifts from the Heuneburg paramount, but will also contain other goods - not found within the Heuneburg paramount's domain - indicative of the partner's own position in the wider exchange system.

In the first case, 'status insignia' act as prestige items circulating within a particular chiefly rank, such that they not only act as symbols of power but through gaining access to them form one of the bases of power of a chief. The model would also predict that these items would circulate from paramount to dependent as part of the total social relations linking the two categories. Hence, it is likely that the Heuneburg paramount would be giving valuables to his dependents through the formation of marriage alliances with them and through feasting, hospitality and as acts of chiefly generosity. His immediate dependents would then, in turn, have the resources to act likewise to their dependents in each sub-chiefdom. They in turn would give him local resources and specialities as signs of their acceptance of his authority and as payment of reciprocal obligations. It would be these commodities (such as the iron, lignite, wool, (?)slaves etc) which he would use to exchange with his external trading partners, whilst being saved the direct labour of their extraction, exploitation, refining, etc. Instead, the labour of a paramount's immediate dependent group can be used to produce the domestic prestige items to be redistributed, the production of foodstuffs, and the organisation (transport costs mainly) of external trade. As can be envisaged, the labour demand for a paramount is far greater than that of any of his dependents in order to satisfy these requirements and he therefore acts as a prodigious recruiter and provider for women to produce children and slaves and clients to incorporate into his household as direct producers.

In the second case, a paramount's external trading partners will be selected for their capacity to provide him with necessary prestige goods and raw materials for internal redistribution. We can predict, therefore, that the Heuneburg paramount's relations with his 'outside world' will be governed by the wider regional trade network that he has been able to latch on to. In this case, however, the relation is one of equivalence (although potentially it could and would be seen desirable by both partners to convert it into a dependent relationship and would therefore be competitive in nature). The partnership is likely to be established and maintained by gift exchange and very likely the exchange of women, and would act as the basis on which exchanges of different resources (eg. Heuneburg tribute for Upper Rhine imports) could be affected.

It is important to view the HEUNEBURG structure within the larger network of which it is part. As in the case of the MAGDALENENBERG, we must consider the Eastern as well as the Western/Southern connections, although it is the latter that are to dominate subsequent developments. Initially, Eastern contacts were probably dominant, ie. the copper and salt resources of the Salzburg area in particular, which had supplied large parts of Central Europe with these basic raw materials for a long time. Copper would have been required in ever increasing quantities for the production of high status bronze items, including the large amounts of sheet bronze needed for the manufacture of vessels and for the trimmings on wagon wheels, and possibly bodies. Salt was a commodity of which the acquisition and distribution could easily be controlled by a paramount.

During Ha C, whilst strong links with the area south of the Alps are indicated by the finds from the HALLSTATT cemetery, only tentative contacts can be recognised in the western part of Central Europe, viz. the KASTENWALD pyxis (Hatt 1956; Frey 1957) is the only certain import dated to Ha C in this area. The earliest (Ha C) phase of impact of Mediterranean centres on Central Europe has been studied in Southern Bavaria by Kossack (1959). He recognises the peripheral situation of Southern Bavaria in relation to the centres in the Salzach-Enns area,



the south-east Alpine area, and later the Swabian Alb and further west. He tried (pp.113ff) to account for the appearance and distribution of technically sophisticated bronzework within Southern Bavaria by postulating the association of a 'Familienwirtschaft' exchanging agricultural produce for the goods they were unable to produce. These goods would have come from areas beyond Southern Bavaria where a 'Gemeinschaftswirtschaft' was found and where specialist production was directly under a chief's control, furthermore only the chief could obtain the raw materials from beyond his area by organising 'expeditions' for them (p.115). The extent of the economic connections should be indicated by the distribution of glass and amber beads. The existence of these chiefs is known from inhumation burials, with wagons, iron swords and horse-trappings in Ha C in Northern Bavaria and Bohemia, ie. contemporary with the HALLSTATT cemetery, and certainly involved in the trade of graphite, probably salt, amber and ores too. (As Kossack has noted, the development of the wagons of Ha C and D are concerned with greater load-bearing capacity, not speed, and that even those found in exceptional burials - ie. in this context denoting status - would have been connected with the transport of increasing quantities of raw materials (1959, 93).

For southern Bavaria, Kossack has distinguished 20 different grave goods associations and correlated them with social rank, mainly in terms of 'class', and has used the wagon to distinguish the highest status. These high status wagon burials are rare in Ha C (types A I 3 and A II 2) but more are found in Ha D (types A II 4, A III 3, some A III 4) (pp.122ff). The earlier (mainly Ha C) high status burials - which Kossack considers to have been of temporary (achieved) status - were indicated by the use of Eastern type horse-trappings (contrasting with the local Urnfield types) and sword burials. During Ha D the connections with western centres are indicated by the use of a dagger, drinking service and wagon as status indicators in tombs (p.129) and when the western centres declined, the loosely structured complex of connections between east and west collapsed and the Ha culture in southern Bavaria was ended.\*

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\* In the following Early La Tène period in this area Kossack sees a combination of local elements and influences from the east, ie. Northeastern Bavaria and the Southeast Alpine area - mainly associated with the salt trade between the Alps and Northeastern Bavaria.

The Heuneburg's connections with this less hierarchical intermediary zone between the Western centres and the Eastern centres is indicated by distributions of various materials: lignite (Rochna 1962, Abb.1), glass and amber (Kossack 1959) and the increasing similarity in burial rite of local chiefs. Salt, copper and possibly gold and graphite would have been passed westwards, and techniques of bronze sheet working may have been learnt from craftsmen or artifacts from the Southeast Alpine or Danubian areas.

Riek (1962, 166) cites the only parallels for the HOHMICHELE glass beads as coming from Bavaria and the HALLSTATT cemetery and considers that they were probably made in Etruria and the Po Valley, ie. reaching the Heuneburg through its eastern exchange partners.

Initially it would seem likely that the western exchange partner of the Heuneburg chief would have been the Magdalenenberg paramount. The evidence for their connections come from the fortified settlement at the KAPF (Hübener 1972 has compared the pottery - especially the large-bellied pots of the painted pottery, on white background - from the settlement with that of Heuneburg phases IVa, b) and from the graves of the MAGDALENENBERG tumulus where contents include the band-earrings, daggers, belt-plaques and 'Tonnen' armbands which are found throughout the Heuneburg domain (Spindler 1971, 1972, 1973). This evidence indicates that by Ha D 1, the Magdalenenberg was linked to the Heuneburg - and with the exception of some items of costume, like the pins in the women's headgear, used the same insignia of social status and possibly political rank, ie. daggers, glass, amber and coral beads etc. It may even be suggested that Graves 39 or 67 represent the descendents of the Magdalenenberg paramount who became dependent on the Heuneburg paramount and were buried with some of the insignia of the sub-chief status, ie. antenna daggers. Through the Magdalenenberg, the Heuneburg gained access to the 'Goldgruppe' Fürsten (Driehaus, n.d. p.208). Thus the Heuneburg had established access to the Eastern and Western exchange partners through a series of intermediary alliances.



As evidence of the emergence of the Upper Rhine chiefdoms, there is the earliest wagon burial at GÜNDLINGEN (Ldkr. Freiburg) (Wagner 1911, 52ff) dated by Schiek (1954, 165) to 'Ha C/D 1?'.<sup>1</sup>

The clearest indication of exchange relations between the Heuneburg paramount and the Upper Rhine centres is from the wagon burial at HÜGELSHEIM (Kr. Rastatt). Schiek (1954, 1956) has emphasised the similarities in construction detail of this wagon and those from VILSINGEN and WINTERLINGEN. This would indicate the distribution of these centrally manufactured wagons to vassals and external exchange partners. It is suggested that the Upper Rhine centres - of which KAPPEL\* (Kr. Lahr), SCHLATT (A. Staufen), IHRINGEN (Kr. Freiburg) and ENSISHEIM (Arr. Gebweiler, Haute-Rhin) represent other chiefly burials - were independent of the Heuneburg but that reciprocal gift giving and exchange of domestic and imported resources linked them. The trefoil bronze jugs found in KAPPEL and VILSINGEN, and the golden 'Kahn' earrings found in HOHMICHELE XI are indications of these exchanges.

It is unfortunate that the settlement deposits from the MÜNSTERBERG in Breisach do not represent this early Ha D situation. R. Dehn (personal communication) correlates the Late Ha/Early La Tène level at the MÜNSTERBERG with Heuneburg I, and Kimmig's 'Vixien' sherds (1969) are associated with Marnian-like wheel-made pottery and Ionian/Pseudo Ionian amphorae sherds. Thus, for Ha D 2 there is evidence for the southern and western exchange activities for this Upper Rhine centre. Its role during Ha D 1 is not yet clear.

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\* The KAPPEL chamber, like that of HÜGELSHEIM, is said to have been lined with bronze sheet (Schiek 1954, 156) which is only replicated in the Heuneburg domain in Ha D 2 at GIESSUBEL 3, but the strapcrossings are like those found in the HOHMICHELE VI. The KAPPEL bronze vessels are thought by Kimmig and Rest (1954) to have reached the Upper Rhine via Marseille and the Rhône route since parallels for the trefoil flagons (shown by Frey 1963 to be of Etruscan manufacture) are found in southern France. The other contents include a finely decorated bronze sheet belt - with Eastern Alpine and Southern decorative elements according to Kimmig and Rest (1954) - and gold neck and armbands, and a bronze bowl thought to be of local manufacture.

There are, however, significant indications of another possible significant centre for early Ha D at the BRITZGYBERG, near Illfurth in Upper Alsace. The BRITZGYBERG has been described by Spindler (1972c) as a 'Fürstensitz'. The sondages and excavation carried out between 1967 and 1971 have been briefly published by Schweitzer (1970, 1971, 1973) and Stahl-Weber (1972). The site is an 'Eperon barré', in the Largue valley, in a situation that Stahl-Weber (1972) believes would enable the occupants of the site to control the passage between the Rhône and the Rhine. Furthermore, the habitation deposits contain much evidence for bronze-working - an ingot, slag, castings - including rejects - moulds etc - iron-working, and weaving. Many finds which are only briefly described would have parallels in the D 1 material from the HEUNEBURG: iron arrow-head, miniature vessels, serpentiform fibula with disc, pottery situlae, a polychrome vase, etc.\*

Figure 28 shows the distribution of the Upper Rhine graves with a wagon (HÜGELSHEIM) and with gold and rich bronze contents (ENSISHEIM, IHRINGEN, SCHLATT, SÖLLINGEN, KAPPEL). All are thought to be of D 1 date by Schiek, except SCHLATT (not listed, 1954, Abb.6) and HATTEN, which is certainly of a later date since its contents include a beaked flagon (Frey 1957; Dehn and Frey 1962).

Schiek (1956) dates HÜGELSHEIM and SÖLLINGEN to D 1 on the evidence of snake fibulae found among the grave contents, and suggests that KAPPEL and IHRINGEN are also D 1 in date (p.191). But, he himself (pp. 134-5) noted the similarity in some details of the wagon construction of KAPPEL, especially the spoke coverings, with LUDWIGSBURG and HUNDERSINGEN, Tumulus 4. Also, the KAPPEL tyre fragments differ from the standard D 1 construction.

Driehaus (n.d. 270) dates all these 'Fürsten' graves - with the exception of HATTEN - to D 1 and, following Kimmig (1969) accepts the Breisach MÜNSTERBERG as a 'Fürstensitz', but not the dominant centre of

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\* The continued use of the site in D 2 is shown by the crossbow fibulae (in level A) and Attic Black Figure sherds (3) and 1 Massaliote amphora sherd in level B.



this group of Fürsten (p.288). Driehaus (p.208) believed that the 'Heuneburg group' of Fürsten graves was earlier than the 'Goldgruppe' of the Upper Rhine whose burial rites were different but who in fact came to dominate. He also suggested that the same social structure would be represented by both groups.

The nature of the distribution of these graves, as seen in *Figure 28*, along the Upper Rhine suggests that these chiefdoms may have retained their independence without one being able to dominate the others, although they were certainly involved in exchanges, as indicated by the similarity in the contents of the graves, viz. gold bands, bronze vessels, etc. (Their independence of the Heuneburg paramount is indicated by the different combination of high status insignia, including items not found in the Heuneburg domain, even at the highest level, viz. gold bands.) This exchange took place between equals but a situation probably existed in which there was competition between independent chiefdoms to control access to their own hinterland and continue to attract the external trade partners to direct their economic activity to them rather than to a competing chief. The Heuneburg-HÜGELSHEIM exchange partnership may have been established to counteract the dominance of the 'Goldgruppe' centre further to the south. The exceptional HATTEN burial may represent a later phase of this more northern centre. As will be discussed below, the status items of the 'Goldgruppe', ie. gold arm and neckbands, were to dominate the insignia of highest political rank of the Ha D 2 paramount at the Hohenasperg

To summarise: although rank differentiation had been recognised, eg. in Bavaria, and expressed in similar categories of status insignia by Kossack (1959), the scale of political development during D 1 in the Heuneburg area is of a different order of magnitude. In other words, we appear to be dealing with conditions of expansion in which formerly independent local chiefs become incorporated as dependents of a dominant chief who was able to control their economic activity. This development seems to occur as a result of changes in the external relations of a particular local chief. In terms of his external relations the Heuneburg paramount was able to achieve a dominant position in the local regional

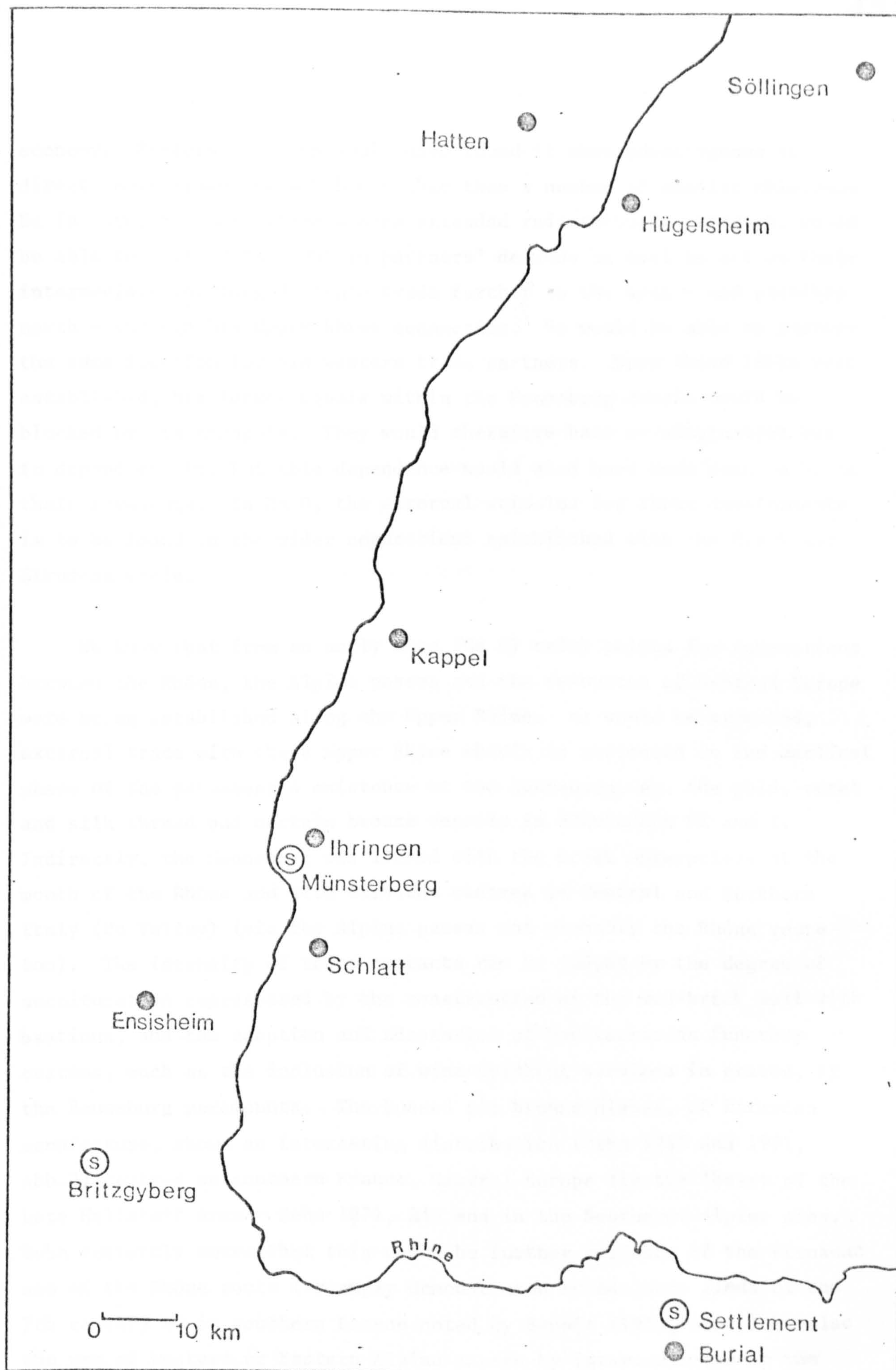


Figure 28: Distribution of Fürsten graves in the Upper Rhine valley.



economy. Eastern partners would have found it more advantageous to direct their trade through him rather than a number of smaller chiefdoms. He in turn, by controlling a more extended redistribution network, would be able to satisfy the eastern partners' demands as well as act as their intermediary for long-distance trade further to the west - and possibly north - through his Upper Rhine connection. He would be able to perform the same function for his western trade partners. Once these links were established, his former equals within the Heuneburg domain would be blocked by his monopoly. They would therefore have no alternative but to depend on him, but this dependence would also have been seen to be to their advantage. In Ha D, the external stimulus for these developments is to be found in the wider connections established with the Greek and Etruscan world.

We know that from an early date (Ha C) relay points for connections between the Rhône, the Alpine passes and the resources of Central Europe were being established along the Upper Rhine. As would be expected, external trade with these Upper Rhine chiefs is reflected in the earliest phase of the paramount's existence at the Heuneburg, eg. the gold, coral and silk thread and certain bronze vessels in HOHMICHELE VI and I. Indirectly, the Heuneburg was linked with the Greek enterprises at the mouth of the Rhône and with Etruscan centres in Central and Northern Italy (Po Valley) (via the Alpine passes and probably the Rhône route too). The intensity of these contacts can be judged by the degree of acculturation represented by the construction of the mud-brick wall with bastions, and the adoption and adaptation of Mediterranean funerary customs, such as the inclusion of wine-drinking services in graves, by the Heuneburg paramounds. The bossed rim bronze dishes, of Etruscan manufacture, shows an interesting distribution (Dehn 1965 and 1971, Abb.2) centred on southern France, Central Europe (in the 'heart of the Late Hallstatt area' - Dehn 1971, 84) and in the Southeast Alpine area. Dehn correctly notes that this could be further evidence of the Etruscan use of the Rhône route (as amply demonstrated by Bucchero finds of the 7th century BC in southern France noted by Benoit (1965, 51ff)) or else the use of Western or Eastern Alpine passes by intermediaries in the exchanges which brought one of these bossed rim dishes into the possession - and eventually the grave - of a Heuneburg paramount (HOHMICHELE VI).



During late Ha D 1 there is evidence of 2 destruction levels in the occupation levels at the HEUNEBURG. Following the 2nd, most extensive, destruction phase, the settlement is re-occupied but both the layout and the fortifications show a break in continuity. The open settlement at the TALHAU is briefly re-occupied, also showing a break in continuity, and then abandoned. A group of tumuli constructed on the Talhau are interpreted by Gersbach (1969) as the burial ground of the 'new dynasty' now reigning at the Heuneburg. These burials are of Ha D 2 and D 3 date and can be related to the now dominant Hohenasperg centre. True, the crisis at the Heuneburg, associated with changes in both settlement and burial patterns, coincides with a more general shift in dominance at the local level. In Ha D 2 - D 3, in the areas that were previously vassal domains of the Heuneburg paramount, there are no clear indications of the continuation of the D 1 political hierarchy. Wagon burials are no longer found in these sub-domains and one cannot detect any significant variation in the grave contents within and between these former vassal domains. As general distributions of D 2 and D 3 material shows (Fischer 1967, Zörn 1952) this does not imply any significant emigration of population from these areas but rather the disappearance of the complex ranking hierarchy reflected in the D 1 burials.

The Heuneburg remained occupied throughout the D 2/D 3 phases but as the distribution map of high ranking graves shows, *Figure 29*, its area of control has now contracted to the area immediately about the older paramount centre. Control over the former vassal domains has been lost and the authority of such vassal chiefs appears to have been undermined. This would fit one of the lines of development predicted in the model when vassal chiefs no longer able to obtain prestige goods from their paramount to distribute to their dependents would lose control over their domains. The paramount at the Heuneburg appears to have maintained his political independence and the structure of his own sub-domain - as can be seen in the continuity of settlement and the survival of burials of 'Fürsten' status in the area during D2/3. However, certain significant changes had occurred. Whereas previously sub-chiefs were dispersed within the sub-domain, they now appear to concentrate and possibly be resident at the Heuneburg. Evidence for this is in the 4 Talhau tumuli at the



Figure 29: List of sites

- 6 GIESSÜBEL - TALHAU, Gem. Heiligkreuztal
- 7 HEILIGKREUZTAL 'SPECKHAU', Kr. Saulgau
- 8 HEILIGKREUZTAL 'ROSSHAU', Kr. Saulgau
- 10 SIGMARINGEN 'ZIEGELHOLZ'
- 58 MÖRSINGEN, Kr. Saulgau
- 59 UPFLAMÖR, Kr. Saulgau
- 60 INNERINGEN, Kr. Sigmaringen
- 61 VERINGENSTADT, Kr. Sigmaringen
- 62 JUNGNAU, Kr. Sigmaringen

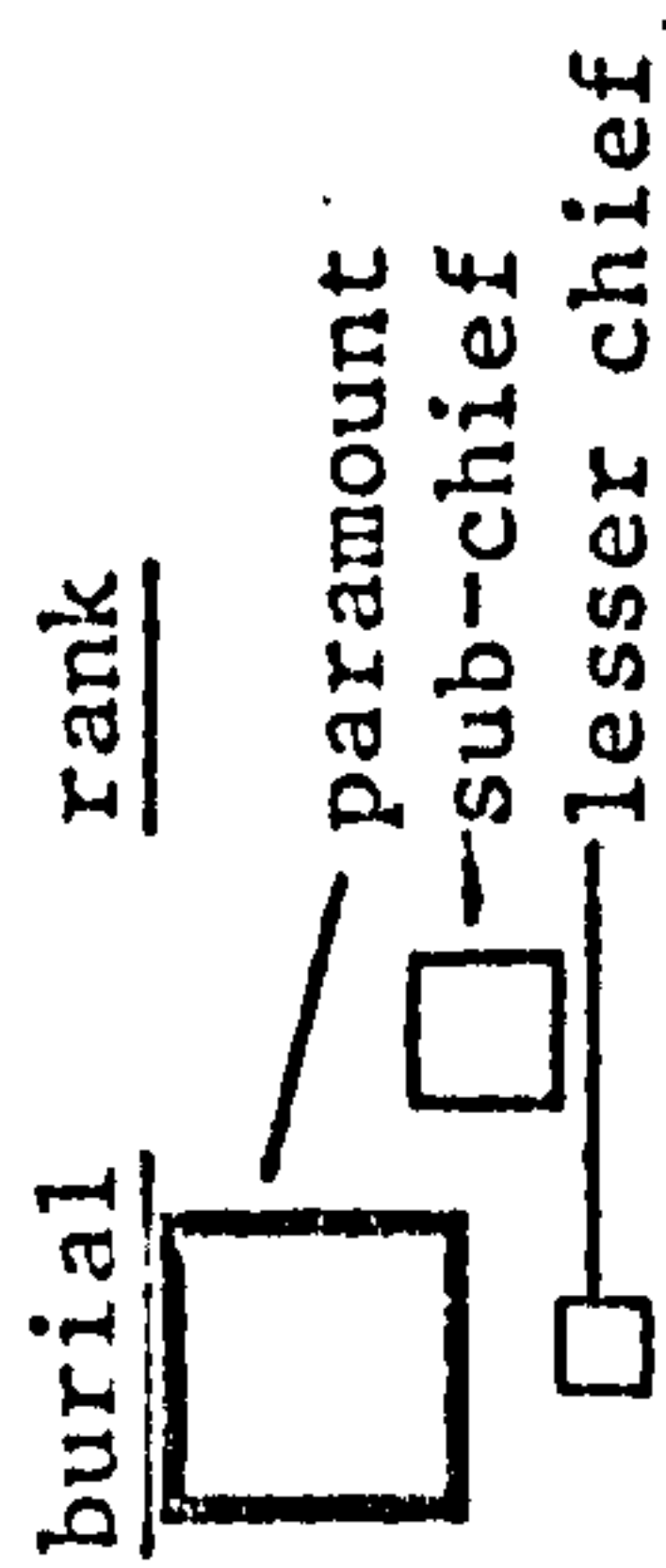
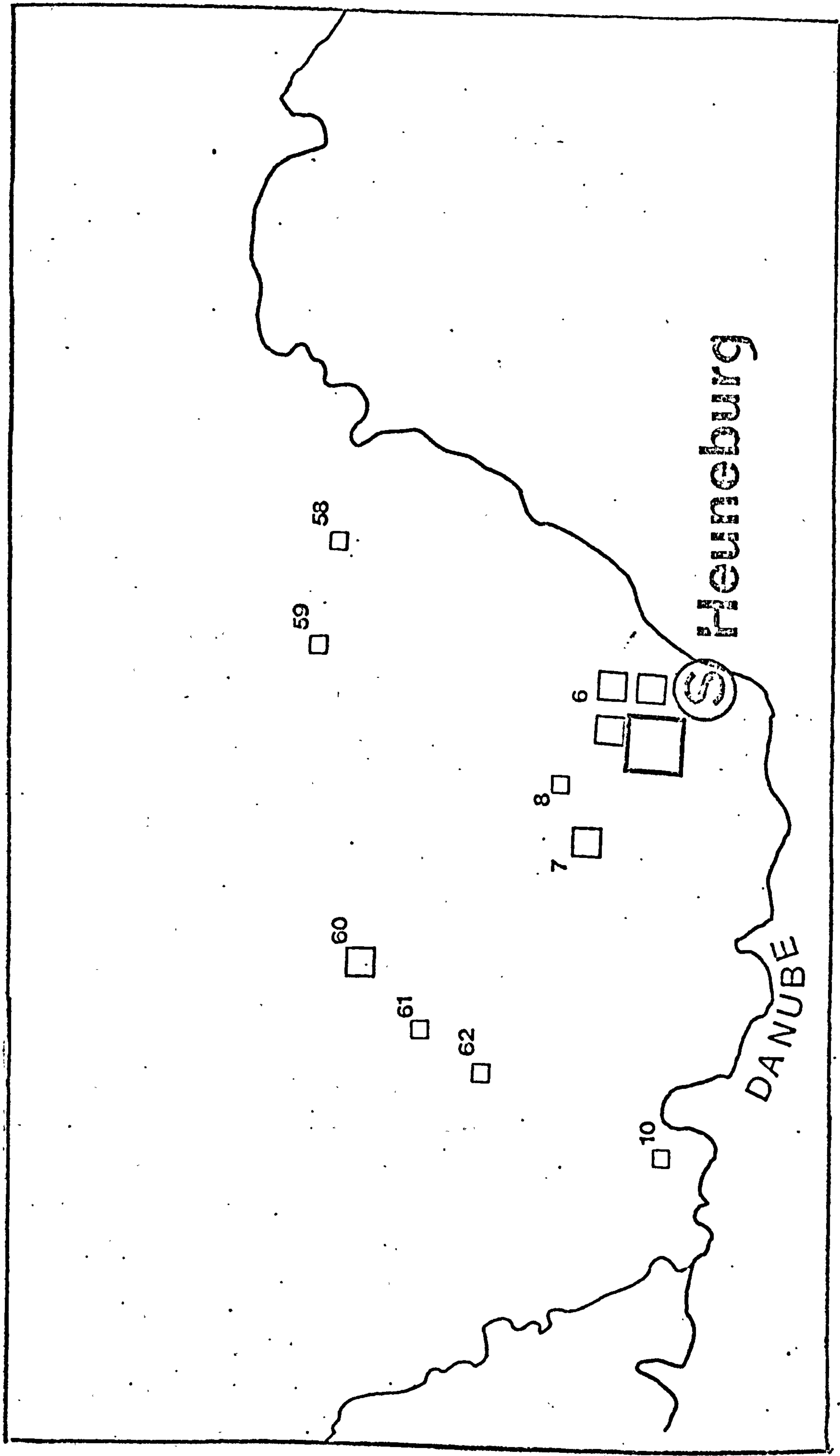


Figure 29: Map of Heuneburg domain (Ha D2)



foot of the Heuneburg. All 4 are generally classified as 'Fürsten' graves (eg. Schiëk 1959) but Tumulus 1 is regarded as exceptional in the wealth of the grave contents and the presence of a wagon and must here be interpreted as the burial place of a paramount, whilst the other 3 (eg. Zürn 1970, 108) correspond to sub-chief status within the ranking hierarchy previously defined. In contrast to these, a number of burials of minor chief status are still found dispersed within the Heuneburg sub-domain, perhaps significantly situated in an arc on its boundaries.

The Talhau burials and the general contraction of the Heuneburg domain in D 2/3 can in fact be related to the emerging dominance of a new centre to the north, situated at the Hohenasperg, Asperg. It is significant that the political development of the Hohenasperg area should coincide with the contraction of the Heuneburg domain and the loss of its vassal sub-domains. The development of the Hohenasperg could be linked with the rupture of external trade relations that characterises the crisis in the Heuneburg domain and would have caused the 'relatively poor grave contents' reported for the primary burials in the Talhau tumuli (Goessler 1923, 208-218). This crisis in D 2 at the Heuneburg also coincides with the penetration of the Hohenasperg domain onto the edge of the Alb and the absorption of some of the peripheral Heuneburg sub-domains. For example, the BURRENHOF sub-chief - whose domain was part of the area probably supplying iron to the paramount during Ha D 1 - seems to have been one of the few Heuneburg vassal chiefs to maintain this status into Ha D 2 with Hohenasperg insignia.

Zürn (1970) has defined the area between the Alb, Schwarzwald, Stromburg and Schurwald, as the Hohenasperg area. As in the case of the Heuneburg area, there is evidence here for continuity in population and burial places, eg. HIRSCHLANDEN, MÜHLACKER, DECKENPFRONN and possibly at the Hohenasperg too. Once again, the majority of settlements were small and dispersed and there are 2 known - and presumably fortified - hilltop settlements which are at the HOHENASPERG (Zürn 1970, 120) and the HOHENNAGOLD, Nagold (Paret 1933-35b, 1935-38). The Hohenasperg and its surrounding graves has been classified as a Fürsten residence by Kimmig (1969). It is unfortunate that the status of this site cannot

be confirmed by excavation, since there are reports from both the HOHENASPERG and HOHENNAGOLD of Ha and Early La Tène sherds.

The Hohenasperg political domain is defined by the distribution of gold-work, coral, jet, glass, amber and sophisticated bronze jewellery often with applied coral or gold. Of these, gold, coral, amber and bronze must have been obtained through external trade. That the collection and distribution of these items was centrally controlled will be shown below. It seems likely that the centralised manufacture of prestige goods and the distribution of foreign wealth objects took place at the paramount's settlement at the Hohenasperg. Zürn (1970) has suggested that gold-working can be attributed to the HOHENASPERG settlement on the basis of the quantity found in the area about it.

The graves of the RÖMERHÜGEL (LUDWIGSBURG) (Zürn 1970, with bibliography) and GRAFENBÜHL (Zürn and Herrmann 1966; Zürn 1970; Schiek 1974) attest the highest political status for this period:

1 In contrast to the Heuneburg, the status of these paramounds appears to be more absolute in relation to lesser chiefs, viz. wagon burial is reserved for the highest political status and - with one exception (BAD CANNSTATT I) - is not found for lesser chiefs. They also contain gold neck and armbands. The Southern imports - also restricted to paramount graves - appear, eg. in the GRAFENBÜHL, to be a collection of 'exotica' of different origin and even age and are not representative of any one particular southern centre. They should be viewed as a collection of gifts from a southern power or his intermediaries to satisfy the paramount chief's need for the accoutrements of southern civilisation.

2 Vassal chiefs can be recognised in the burials which share with the paramount graves the inclusion of gold neck and armbands; they also contain bronze cauldrons: BAD CANNSTATT I and II (Paret 1935, 1935-38; Kimmig and Rest 1954; Zürn 1970, 122ff), DÜSSLINGEN (Kr. Tübingen) (Schiek 1954, Zürn 1970) and BAISINGEN (Kr. Horb) (Schiek 1956, Zürn 1970) are the graves of the vassals of the 3 domains of Bad Cannstatt,



Figure 30: List of sites

- |   |                               |
|---|-------------------------------|
| 1 MÜHLACKER, Kr. Vaihingen                        | 36 BAISINGEN 'BÜHL', Kr. Horb |
| 2 GÜNDELBACH                                      | 37 ROTTENBURG, 'BIRTENLEH'    |
| 3 KLEINBOTTWAR, Kr. Marbach a.N.                  | 38 DUSSLINGEN, Kr. Tübingen   |
| 4 BEIHINGEN a.N., Kr. Beihingen                   | 39 NEHREN, Kr. Tübingen       |
| 5 GRAFENBÜHL, Asperg, Kr. Ludwigsburg             | 40 BELSEN                     |
| 6 RÖMERHÜGEL, Pflugfelden                         |                               |
| 7 KLEINASPERGLE, Asperg                           |                               |
| 8 BÜHL, Müglingen, Kr. Ludwigsburg                |                               |
| 9 OSTERHOLZ, Asperg                               |                               |
| 10 KORNWESTHEIM, Pflugfelden                      |                               |
| 11 HOCHDORF, Kr. Vaihingen                        |                               |
| 12 SCHWIEBERDINGEN, Kr. Ludwigsburg               |                               |
| 13 SCHÖCKINGEN, Kr. Leonberg                      |                               |
| 14 HIRSCHLANDEN, Kr. Leonberg                     |                               |
| 15 GERLINGEN, Kr. Leonberg                        |                               |
| 16 KORNTAL, Kr. Leonberg                          |                               |
| 17 BAD CANNSTATT, Stuttgart                       |                               |
| 18 FELLBACH                                       |                               |
| 19 UHLBACH, Kr. Stuttgart                         |                               |
| 20 ESSLINGEN                                      |                               |
| 21 SIRNAU, Esslingen                              |                               |
| 22 BIRKACH, Stuttgart                             |                               |
| 23 ECHTERDINGEN, Kr. Esslingen                    |                               |
| 24 WOLFSCHLUGEN                                   |                               |
| 25 NEUENHAUS, Kr. Nürtingen                       |                               |
| 26 NEUENHAUS, Kr. Nürtingen                       |                               |
| 27 SCHLAITDORF, Kr. Nürtingen                     |                               |
| 28 BURRENHOF - ERKENNTSBRUCHWEILER, Kr. Nürtingen |                               |
| 29 ROMMELSBACH, Kr. Reutlingen                    |                               |
| 30 TÜBINGEN - WALDHAUSEN                          |                               |
| 31 WEIL IM SCHÖNBUCH                              |                               |
| 32 WEIL IM SCHÖNBUCH                              |                               |
| 33 DARMSHEIM, Kr. Böblingen                       |                               |
| 34 DECKENPFRONN, Kr. Calw                         |                               |
| 35 'KRAUTBÜHL'                                    |                               |

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Figure 27: Map of Heuneburg domain (Ha D 1)

Düsslingen and Baisingen. In addition, it seems probable that one of the large tumuli in the Mittelstadt area and another in the Vaihingen area would also contain burials of this rank.

- 3 Within each of the sub-domains, including that of the Hohenasperg paramount, sub-chiefs can be recognised. Their status is defined by a small quantity of gold: usually in the form of earrings, eg. SCHÖCKINGEN (Kr. Leonberg) (Paret 1938-51; Maier 1962), and the many sites listed by Paret (1935-38, 63-4, note 7), which feature on *Figure 30*.\*
- 4 In each of the sub-domains, another level of the political hierarchy can be recognised below that of the sub-chief: it is characterised by the possession of other items distributed from the centre, such as rich bronze jewellery, often with coral inlay, jet, amber and glass beads, eg. GERLINGEN 1 (Kr. Leonberg) (Riek 1962); HIRSCHLANDEN 7 and 11 (Kr. Leonberg) (Zürn 1970, 53ff).
- 5 Lineage dependents of chiefs at each level of the hierarchy have access to bronze jewellery (rings) often poorly finished: the production of these simple bronze items was probably under the control of the local chief, eg. HIRSCHLANDEN 3. See *Figure 31* for a table of the graves and their contents.

The sub-domains of the Hohenasperg roughly follow the Neckar and its tributaries, the Ens and the Schmiecha, *Figure 30*. The orientation of these domains therefore seems to be strongly influenced by the need to control the river valleys, thus giving a roughly North-South linear distribution. It is also striking that sub-chiefs within the Hohenasperg sub-domain had greater access to goldwork and other prestige goods than would appear to be the case of the other sub-domains during D 2. The closer connection between BAD CANNSTATT and Hohenasperg can also be seen in the exceptional inclusion of a wagon in a vassal chief's grave.

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\* I should like to thank Anne-Elise Martin for her help in preparing the maps, *Figures 27 and 30*.



Figure 31

SCALOGRAM OF GRAVE CONTENTS OF FIRST FOUR RANKS IN THE  
HOHENASPERG DOMAIN, Ha D 2

Site No.	BURIAL	wagon	southern imports	bronze vessel	gold neckring	gold armring	gold earrings	other items - bronze or gold	amber	coral	jet/glass	bronze neckring	bronze arm/footring etc	bronze belt plate hook	bronze fibula	iron spearhead
5	GRAFENBÜHL	x	x	x	?	?		x	x							
6	RÖMERHÜGEL	x	x	x	x			x								
8	BÜHL			x	?	?										
17	BAD CANNSTATT I	x		x	x	x	x	x					x	x	x	
	BAD CANNSTATT II			x	x	x	x							x	x	x
38	DUSSLINGEN			x	x	x		x						x		x
36	BAISINGEN			x	x	x			x				x			
13	*SCHÖCKINGEN					x	x	x		x		x	x			
11	*HOCHDORF						x		x	x		x	x	x	x	x
3	KLEINBOTTWAR						x				x		x	x		x
27	SCHLAITDORF						x					x	x			
39	NEHREN						x	x								
31	WEIL						x						x			
32	WEIL						x						x			
29	ROMMELSBACH						x	x	x							
28	BURRENHOF - ERKENNTSBRUCHWEILER						x									
25	NEUENHAUS						x									
23	ECHTERDINGEN						x									x
40	BELSEN						x									
30	WALDHAUSEN						x									
14	*HIRSCHLANDEN 11								x	x	x	x	x	x	x	
15	GERLINGEN 2									x	x		x	x	x	
34	DECKENPFRONN 1										x	x	x		x	
9	OSTERHOLZ 5											x	x		x	
4	BEIHINGEN												x	x		

\* within the Hohenasperg sub-domain

Lacking evidence of industrial activities from the Hohenasperg settlement, indications of centralised production and tribute collection are more indirect than in the case of the Heuneburg. It is likely that the DÜSSLINGEN sub-domain would have been involved in the exploitation of the jet resources indicated by Rochna (1962) in the Balingen area. The iron of the Alb was probably exploited in the Urach area - as in D 1 - and possibly passed directly to the Hohenasperg: this would have been the economic basis to the political survival of the BURRENHOF sub-chief. Furthermore, stock-rearing can be suggested for the highlands of the Schönbuch; this would have supplied the paramount with hides and fleeces. There is evidence for the production of high status cloth from the GRAFENBÜHL (central chamber) (Zürn 1970) where cloth with gold thread was found.

Certain industrial activities can be suggested as having been under the Hohenasperg paramount's control, and hence carried out at the Hohenasperg. Both Paret (1935) and Schiek (1956, 133) believe that the wagons of LUDWIGSBURG and BAD CANNSTATT I (Schiek's Type B) came from the same workshop. The complexity of the bronze and iron working and the similarities between the two suggest that this workshop would have had to be part of a larger complex of metal and woodworking facilities. The evidence for high status cloth suggests that certain cloth-production would also have been carried out by craftsmen at the paramount's centre. The use of coral, amber and gold in small quantities as inlay or as application to simpler bronze types, eg. pins and fibulae, implies centralised production of the basic types in workshops where these foreign materials were available and worked into larger items. This would be supported by the marked similarities in the neck and armbands and also the fact that the same techniques were used in the working of the amber and coral found throughout the domain. Both copper and tin would have had to be obtained through external exchanges and the manufacture of bronze vessels, neck-rings, fibulae and belt plaques would have been centralised whilst the manufacture of simpler items, such as plain bronze rings, could have been under local chiefs' control. The working of iron may have been centrally controlled, since Zürn notes that the ores were not generally available throughout the Hohenasperg area.



The stylistic evidence and the limited range of the gold types indicate that the gold found within the domain was being worked at and distributed from a single centre, which is assumed to be the Hohenasperg. Similar techniques were used on jet, amber and coral and similarities in the items produced in gold and these other materials suggest a common centre of manufacture. Gold was also used in small quantities as applications to more base metals (silver and bronze) and amber and coral were used to embellish simple bronze items. Gold was particularly important in denoting political status and the access to and control of this commodity must have been one of the bases of the Hohenasperg paramounts' authority. Hartman (1970) has shown that the gold found in Ha D 2 contexts is not Rhine-gold, but was obtained from more distant sources that were being widely traded in Central Europe at this time (as in Ha D 1 and Urnfield times). Hartman has shown the analyses of the gold of the Hohenasperg paramounts' graves and all the other gold-rich graves of Ha D 2 (including Talhau 1, 2, 3, 4) to be of one type. A second type of gold is represented in a few graves of this period. But, both types are represented in the Upper Rhine area, eg. at KAPPEL. This indicates that the Hohenasperg access to gold was through the Upper Rhine centres. Rochna (1962) has suggested that gold was exchanged for jet between the Hohenasperg and Upper Rhine centres in this period.

Exchange relations clearly existed between the Hohenasperg paramounts and the Upper Rhine chiefs. Exchanges in gold, jet, probably amber and glass, would have been facilitated by reciprocal exchanges between the chiefs; these exchanges are reflected in the assortment of Mediterranean exotica found in the GRAFENBÜHL. The RÖMERHÜGEL contains a shallow bronze dish with handles like one found in HATTEN (Frey 1957). The only other parallel is from a grave in Southern Bohemia (Dehn 1971). Dehn (1971) believes that they are the products of a southeast Alpine or northern Italian workshop, but what is significant here is that their distribution implies connections between the eastern Alpine area and the Upper Rhône, as well as an Upper Rhine-Hohenasperg link. Schiek (1956, 78) notes that the best parallels for the large, hollow-headed gold pins from SCHÖCKINGEN are found in Switzerland, but that the graves of IHRINGEN and GUNDLINGEN were reported to have contained similar pins.

The extension westwards of the Upper Rhine exchange relations is suggested by the 'Vixien' material from the MÜNSTERBERG, Breisach (Kimmig 1969). A possible intermediary in exchanges between the Upper Rhine and the coastal region near Marseille is the site of CAMP DE CHATEAU, Salins (Jura), where a variety of Lower Rhône and even Phocaean wares are found (Dayet 1967). This would also be a likely route for the trade in gold which possibly came from Iberia.

The exchange relations between the Hohenasperg and Heuneburg are clearly shown by the burials in the Talhau tumuli which contain the gold neck and armbands which are such important elements of rank insignia in the Hohenasperg domain. The 4 pins with decorated amber heads found in TALHAU I, 4 and HOCHDORF (Kr. Vaihingen) (eg. Paret 1935-38) are so alike, according to Schiek (1956, 79), that he regards them as products of a single workshop. Furthermore, Schiek cites the only small-headed pins found in Fürsten graves as coming from TALHAU I, 4, TALHAU III and LUDWIGSBURG, secondary burial no.5. Presumably, these would have been passed on to high-ranking lineage members by the exchange partners. There are no southern imports in the Talhau burials (although Black Figure wares and southern amphorae sherds etc are known from the settlement). Since the Heuneburg chiefs appear to be subordinate to the dominant Hohenasperg paramount, it would be unlikely that the latter would have derived his southern imports and other foreign materials through the Heuneburg, but both would have been involved (as described above) in exchange alliances with the Upper Rhine centres. The Heuneburg chief may have maintained his alliances with the east which would have enabled him to maintain his own sub-domain and establish himself high in the Hohenasperg ranking, and also facilitate exchanges with the Upper Rhine for the southern produce - not necessarily of high status - like wine which was consumed in his settlement.

As found in Ha D 2 in the Heuneburg area, the authority of the Hohenasperg paramounts was to be undermined and his domain limited to what was formerly his sub-domain. The last of the paramount burials at the Hohenasperg, the KLEINASPÉRGLE, contains a combination of imported bronze vessels, gold ornaments, vases and other items which are clearly



Early La Tène (or Ha D 3) in date and represent a re-alignment of the external connections of the Hohenasperg paramount (Paret 1935-38; Schaaff 1969; Zürn 1970, 118 with references). Other graves within the reduced domain confirm the continuing redistributive role of the paramount, eg. secondary burials within the RÖMERHÜGEL and GRAFENBÜHL, also HIRSCHLANDEN Grave 13, SIRNAU (Paret 1935-38; Zürn 1970) and others.

The open circles on *Figure 31* show the reduced Hohenasperg domain during D 3/Early La Tène. The most notable examples of the paramount's new contacts are the KLEINASPERGLE grave contents and the evidence of his stela there, and the carved HIRSCHLANDEN figure from within his domain (eg. Kimmig 1965; Zürn 1965 and 1970; Beck 1974).

Jet provides most evidence of the external relations of the Hohenasperg paramounts. As Rochna (1962, 62) points out, jet beads are found in greatest frequency in the Southern and Central Württemberg area, and their distribution extends through the Lower Rhine area to near Lake Constance. During Ha D 3 (Early La Tène),\* there are further indications of the paramount's links with the emergence of the dominant Middle Rhine chiefdoms in the large lignite armrings found in the KLEINASPERGLE and the grave of REINHEIM (Kr. St Ingbert) (Keller 1965). Furthermore, there is another ring of this type found in grave 44 of the DURRNBERG, near Hallein. This indication of the continued exchanges - now probably indirect - between the dominant paramount in southwestern Germany and the chiefs of the Salzburg area is supported by Schwappach's (1973) evidence for the combination of 'western' and 'eastern' stylistic elements in Early La Tène ornamentation. Exchanges in salt, copper, tin and amber would have been other material bases of these alliances.

Early La Tène represents the first stage of the dominance of the Middle Rhine centres of southern trading connections, corresponding with an extension of the periphery of the regional system centred on the Central

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\* The inter-relationship of the final phase of Hallstatt D (D 3) and the beginning of Early La Tène is much disputed (eg. Zürn 1952 and 1970; Haffner 1976; Lang 1974, Uenzè 1964).

Mediterranean, the core area of Etruria and Greater Greece. These developments in the late 6th and 5th centuries must be related to the decline of Marseilles towards the end of the 6th century and the increasing importance of the Etruscan centres in the Po valley and the head of the Adriatic, where Greek traders were established at ADRIA and SPINA.

It is not possible to deal with this phase of the evolution of early Iron Age societies in the peripheries of the Central Mediterranean core states here. Suffice it to note that many features predicted in the evolution of this social form are found: ie. the emergence of competing centres in the periphery, increasing competition among core centres and their intermediaries in their attempts to establish and monopolise new exchange partners. These developments involved the extension of the periphery - geographically - and the emergence of new dominant centres; they also, predictably, involved the core centres or their intermediaries in 'mass production' of certain commodities (mainly bronze vessels) which specialist traders used in establishing and maintaining exchange relations with indigenous centres in the new periphery.

In addition to elucidating the nature of the internal structure of the Hallstatt D society of Southwestern Germany, and predicting certain patterns of development, it has been shown that its evolution was dependent on exchange relations established with other indigenous centres, north of the Alps, and with the intermediaries or specialist traders representing the Mediterranean centres.



## CONCLUSION

It is not proposed to summarise either the contents or the conclusions drawn in the analysis of this body of material. Instead, the underlying connectedness of the developments observed in the Near East, Aegean, Mediterranean and Central Europe will be emphasised.

It has been shown that by dealing with systems of interrelated societies, not merely with comparisons of material of the regional representatives, we can understand the impact of the Near Eastern and Mediterranean core states on the indigenous inhabitants of the peripheral areas they increasingly drew into the bounds of the major regional system. It is by formulating detailed models of the internal function of the core states, within the broader regional context, as Oppenheim, Diakonoff, Larsen and Finley have done, that we are able to consider the nature of the 'expansion' of these core states and their semi-peripheries into the new peripheral areas.

The Phoenician cities were part of the western Asiatic regional system and took on semi-peripheral economic functions whilst remaining politically 'independent'. Prior to the 8th century expansion into the European periphery, the Phoenician cities had largely dealt with highly developed, centralised states in Western Asia and Egypt. Thus, when establishing contacts with the indigenous populations of Southern Iberia, they can be seen to treat the 'rulers' as they would have an Egyptian Pharaoh or an Asiatic king. In so doing, they boosted the local leaders, giving them classic symbols of power and kingship, viz. ivory and alabaster. This strategy reveals the lack of a vested interest on the part of the Phoenicians in Iberia. They regarded it as a base for the creation of a new specialised trading sphere. In order to obtain indigenous production surpluses and instigate or encourage the exploitation of local resources, the Phoenicians established 'factories' on the south coast. Thus, by introducing Phoenician categories of material and technology, such as cloth, dyes, dried fish, oil, unguents, fine wares and metalwork, exchange relations between Phoenician merchants and indigenous rulers could be maintained: it has been shown that fine

bronzework and jewellery were highly esteemed and in short supply in the south before the Phoenician intervention in the Atlantic trading network. With these commodities, contractual relations with the indigenous leaders could be created and exchanges with other levels of the indigenous society carried out. The Phoenicians thereby boosted the existing elite, but whilst treating the 'leaders' as 'kings', in fact turned them into clients. There was no interest on the part of the Phoenicians to take over the political authority of local leaders, nor to organise the production of the commodities or exploitation of the resources they were there to obtain. Similarly, due to the presence of Phoenician merchants along the south coast, as well as the Atlantic and Mediterranean coasts of Southern Iberia, it was not possible for any single indigenous centre to dominate or monopolise exchange relations with the Phoenician centres.

The Western Phoenician sphere was an important area of Eastern Phoenician commercial activity: it served to connect up the Atlantic and Mediterranean networks and appears to have been intrinsically connected to the establishment of Greek colonies in the Central Mediterranean and the subsequent evolution of the 'Greater Greek' cities and their Etruscan counterparts. The duration of the Western sphere, as observed in the late 8th and 7th centuries, was limited not only by changes in the Western Asiatic regional system - of which it had always remained a part - but also by the increasing intensification of Greek/Etruscan relations with Central Europe, north of the Alps. These exchange relations were established in order to obtain certain resources, such as copper, tin, precious metals, amber, etc., from a new peripheral area (where new rates of exchange could be established), thereby cutting out the Western Phoenicians, the former suppliers of many of these resources to the Central Mediterranean. Thus, it is no coincidence that the Western Phoenician sphere declined when Western Central Europe was incorporated into the periphery of the Greek dominated Central Mediterranean.

By the 6th century, the Carthaginians were attempting to salvage what they could of the Phoenician dominated Atlantic trade, whilst the foundation of Greek establishments on the northern Mediterranean and Levantine coast of Iberia was intensified. The 'Iberian' culture of the



southeast, strongly acculturated by the Greek Mediterranean world, is seen to control the southeastern ore resources and attempt to enter the Atlantic system. But the rarity of Greek material and the late date of the establishment of overland routes to the Atlantic from the Southeast, suggest that the Carthaginian involvement in Atlantic Iberia was successful, at least until the 4th century, corresponding with increased Punic activity in Atlantic Morocco, and probably further south along the coast of Africa.

We have had to refer to the general context of the Western Asiatic regional system and the internal structure and functioning of certain component societies, in particular the Phoenician and Greek, to account for the relatively 'ephemeral' impact of the Phoenicians on the indigenous 7th century Iron Age societies of Southern Iberia, when direct contact with Phoenician merchants, craftsmen, and other representatives of the Eastern cities, took place. The same framework is needed to explain the phenomenal 6th century developments in South-western Germany where supplies from southern trade partners representing the Greeks and Etruscans reached the peripheries through intermediaries and where access to them and their distribution could be - and was - monopolised. Thus, in certain indigenous societies of Central Europe, political authority came to be associated with the access to socially vital commodities, 'prestige-goods', obtained through exchange beyond the existing regional network, ie. with representatives of the southern powers. It is important to note that these societies whose increased hierarchisation and economic development is observed in the 6th century were part of an extensive Central European exchange system in which craft specialisation, specialised resource exploitation and large scale production and distribution of bronzework are characteristic features. Thus, before their incorporation into the Mediterranean regional system, important exchange relations connected up the regions of this peripheral zone, and a certain degree of hierarchisation has been recognised in some areas.

It has been attempted here to combine two approaches to the study of early 1st millenium interrelationships between the Near Eastern and Mediterranean states and the populations of the Western Mediterranean and Central Europe they contacted. Firstly, by viewing the areas concerned as part of a single 'world-economy' (Wallerstein 1974), it has been possible to link regional situations and their subsequent evolution to the major expansionist powers, and to each other. Thus, the archaeological record of 8th and 7th century penetration of the Central and Western Mediterranean by Phoenicians and Greeks is corroborated by the evolutionary tendencies of the Western Asiatic core states and their interdependence. There was, therefore, no need to attempt to substantiate this cohesive picture with vague literary references to the nature and inception of westward expansion.

Secondly, by drawing upon the works of Oppenheim, Diakonoff, Barnett and others, on the internal structure of the individual states as well as their inter-connectedness, it was possible to envisage the structure of the Phoenician commercial city-states at the time of their penetration of the European periphery and hence predict certain consequences of this extension beyond the Near Eastern world and the strategies they were likely to employ. Furthermore, by developing a model of a 'prestige-good' economy, based on the work on exchange theory by Mauss, Meillassoux, Rey and Dupré, Ekholm, Sahlins and others, the internal organisation and evolution of a society incorporated into the periphery of the regional system could be examined.

In the works of Childe, Coldstream, Muhly, Winter and others, we are reminded of the links between the Eastern and Western Mediterranean, to the extent that Muhly considers that in the 2nd and 3rd millennia BC 'the Mediterranean world provides a legitimate cultural unit' (1973, 180); and Winter astutely relates the establishment of contacts with Central Europe corresponding with the exclusion of the Greeks from the Western Asiatic system in the 7th century (1975, 422). It is hoped that we can go beyond this and consider the Western Asiatic/Mediterranean/European world of the early 1st millenium BC in terms of a single 'world-economy'. Although this thesis represents a preliminary step



in this direction, it is hoped that further work to re-integrate Near Eastern, Aegean and Prehistoric European studies will confirm the systemic interrelationships proposed here and that the explanation of developments in different areas of Europe in terms of their political and economic structures and interrelationships - rather than material correspondences - will be facilitated.